# ALBERTA

DEPT. OF PUBLIC WORKS

ANNUAL REPORT

1912-14

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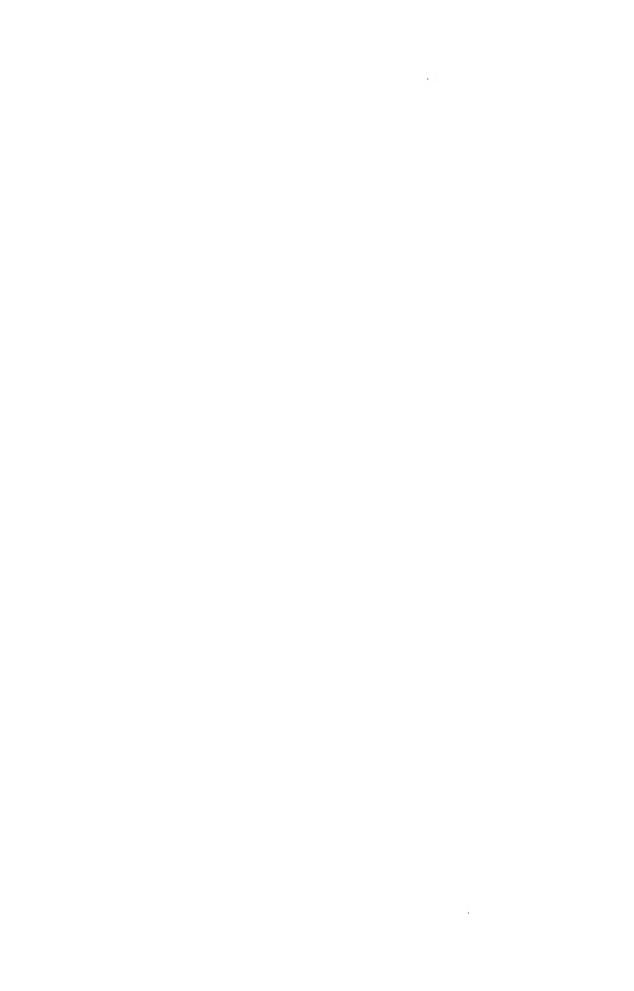
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# DEPARTMENT OF PUBLIC WORKS, REGINA, March 1, 1905.

To His Honour,

AMEDÉE EMMANUEL FORGET,

Lieutenant Governor of the North-West Territories of Canada.

SIR,-

I have the honour to transmit herewith the Annual Report of the Department of Public Works for the year 1904.

I have the honour to be, Sir,

Your obedient servant,

G. H. V. BULYEA,

Commissioner of Public Works.

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## DEPARTMENT OF PUBLIC WORKS,

REGINA, March 1, 1905.

G. H. V. BULYEA, ESQ., M.L.A.,

Commissioner of Public Works.

SIR,—I have the honour to submit the Annual Report of the Department of Public Works of the North-West Territories for the year 1904.

The increase and extension in the work of the department, referred to in the last annual report, has continued, which will be found from the detailed information in the following pages. This increase was to be expected from the rapid increase of settlement and extension of the areas within which the department has been called upon to perform public

works during the season.

The damage to and destruction of bridges and roads in Eastern Assiniboia, owing to floods caused by melting snow in the latter part of April and May, which completely destroyed a very large number of the old structures, necessitated a very considerable expenditure for new bridges of a much more substantial class than heretofore constructed in the locality mentioned, and a generally favourable season for such works permitted of replacing practically all structures destroyed and completing a large number of other new structures necessitated by the extension of settlement and extension of railways, and while it was not possible to comply with all requests or meet all the requirements, it will be noted that a very much larger number of bridges were constructed or reconstructed than in previous years. The system of putting in steel superstructures as far as possible to meet the expenditure has been followed and an effort made to use concrete substructures in preference to piling and timber. The bridges over the Old Man river near Macleod and the Belly river near Lethbridge were both during the year completed on this class of substructures and the construction of bridge over Bow river near Morley was undertaken and well advanced at the end of the year on the same The replacing of piling and timber substructures supporting some of the older steel bridges with concrete should be carried steadily along to avoid too much of this work coming on at one time, and where possible permanent concrete substructures should be placed in all streams to carry the steel superstructures. It has, however, been impossible, owing to the limited season for the performances of such work, limited means and the fact that bridges had to be provided without delay, to put in as much permanent work as we would like to have done, consequently piling has been used and concrete will be a later consideration. Where conditions are favourable concrete or tile pipe should be used for the smaller sized culverts in connection with road construction, its first cost not exceeding very much that of timber in many localities.

A large amount of road improvements was carried on both in large and small local improvement districts, but in the latter particularly an effort was made to concentrate the improvements on leading trails just as far as possible, it being evident that expenditures on such works, outside of what the local improvement districts are able to perform, should, as far as possible, be made upon leading trails or roads, with a view of benefiting the largest number of settlers for the expenditure. Generally dry and favourable weather for road work in the latter part of the season, while improving the general condition of roads, also permitted of undertaking improvements where not possible to advantageously do so during the wet seasons, had funds been available for the purpose.

Agreements with the railway companies re fireguarding along their lines, entered into in 1902 and carried on for two seasons, were terminated at the end of 1903, the companies continuing the work of maintaining fireguards during 1904. Fireguards outside of these along railway lines were maintained as in previous seasons, and while these guards have not in all cases turned or stopped the fires, the protection

given seems to amply warrant the expenditure.

Dry weather through the latter part of the season has again brought up strongly the question of shortage of water in several localities, and the six drilling machines owned by the department were operated steadily up to the end of the year with varied success, and while the percentage of wells in which from fair to good supplies of water were obtained is encouraging, admittedly, the number and class of machines owned by the department is entirely inadequate to meet the requirements, and in localities where supply of water can be obtained at a reasonable depth, the settlers will, undoubtedly, have to make more effort to supply themselves, as we have on hand at present applications that would keep all the machines fully employed during 1905. There are, however, certain areas where supply has rarely, if ever, been found by the tests made down to 400 or 500 feet, and I would be inclined to advise the purchase of a 2500 to 3000 foot machine for the purpose of making tests in such localities, such tests only to be undertaken in organised districts where the local authorities are willing to contribute largely to the expense outside of the first cost of the machine.

The areas organised under the new Local Improvement Ordinance up to the end of the year is very gratifying, and generally speaking the eouncils have shown a marked interest in looking after their own local affairs, which has resulted in a lot of good work being done, besides placing the department in a position to deal with the council as a body representing the district in preference to the confusion that generally arises when aiming to deal with public improvements on private requests and recommendations. Petitions for organisation now on hand point to a largely increased organisation of local improvement districts during 1905, and it is confidently hoped that this organisation will be the first step in a system of fuller local control of the many small questions, which it is practically impossible to deal satisfactorily with from one central point in view of the large area over which settlement is

spreading.

The total expenditure incurred by the department during the year on public works and paid out of general revenue amounted to \$611,417.77, some \$239,197.77 more than was expended from this source in 1903, and while this sum includes payment for certain works completed in 1903, at least an equal amount will be paid in 1905 for works completed in 1904. For the purpose of comparison with the expenditure of former years and of showing the growth of the annual expenditure of the department, the following table, compiled from former reports, is appended.

Expenditure	in	1899	\$146,403
"	"	1900	175,960
"	"	1901	236,574
te	"	1902	298,238
66		1903	
"	"	1904	$611,\!417$

Showing that in 1904 \$465,014 was expended over and above On a percentage basis the amount expended in 1899.of1900 was 20.19 per cent. above that of 1899 expenditure  $34 \ 45$ 1901 1900  $\mathbf{that}$  $\mathbf{of}$ " " 26.061901 1902 " 1903 31.511902 " 1904 **64.26** 1903 1904 " 317.62 1899

For the sake of uniformity the system adopted in the preparation of former reports will be followed as nearly as possible throughout this report with the exception that since the small local improvement districts have been disorganised by the new ordinance which came into effect on the 1st of January, 1904, there will in consequence be no list of overseers of local improvement districts, but instead, a list of the districts organised during 1904 is appended, showing their area and the names of the secretary-treasurers.

### CORRESPONDENCE BRANCH.

Staff	1 chie 	f clerk. ks. senger.
	/	~~~~

The following statement will show the large amount of correspondence handled by this branch during the year, also a marked increase over former years:

Commun	ications	receive	d, 190242,251
"		*6	190346,306
"		"	190475,264
Commun	ications	s sent,	1902
"		"	190388,304
"		"	1904147,691
Irrigation	n Office	, 1902	3,417
	"	1903	3,519
**	"	1904	
"	"	special	eirculars, 19043,500
Total,	1902		132,398
"	1903		140,929
"			
Average	number	· dealt w	rith daily, 1902
"	"	"	" 1903
"		"	1904761
Entries of	of cash i	received,	$1902\ldots\ldots9,651$
"	"		1903
44	"	44	190418,468

This shows an increase of communications received and sent over and above 1903 of 91,074, or a daily average of 761 communications handled by the department.

#### THE COAL MINES REGULATIONS ORDINANCE.

Five new coal mines were opened up during the year of which the department has been notified and the following schedule shows the mines which have been operated in the Territories of which we have a record in the department:

## Output of Coal during the Year 1904.

Bituminous and lignite coal		
711 4 1	E00.001	

It will be observed that the total output of bituminous and lignite coal exceeds that of 1903 by 141,814 tons, being an increase of about 22.95% on these two classes. The increase in the production of anthracite to 18,178 tons over last year's output is accounted for by the operation of Bankhead mines at Banff.

### Schedule of Accidents in Coal Mines in 1904.

	Cha	racter of Accide	nt	
LOCATION	Resulting in death	Serious injury	Slight injury	Total of accidents
Blairmore				1
Canmore		ī	•	1
Coalfields	2	1	l	4
Coleman		1	4	5
Edmonton	1		1	2
Estevan		I		1
Frank	3			3
Lethbridge	. 4	3	1	4
Lubreck	• •	2		2
Total in Territories.	6	10	7	23

### MINES opened in 1904.

	· <del></del>		=======================================
Name	LOCATION	OPERATED BY	CHARACTER OF COAL
Ramoe Colliery	Edmonton Clover Bar	Stewart Coal Co. O. S. Radway. Phillip Ottewell Wm. Barnes John Cameron	66

## Annual Report 1904

## MINES in Operation which were Opened previous to 1904.

		· · · · · · · · · · · · · · · · · · ·	
Name	LOCATION	OPERATED BY	CHARACTER OF COAL
The H. W. McNeill		The Canadian Anthracite	
Co., Ltd., Anthracite	Anthracite	Coal Co	Anthracite
The H. W. McNeill	Caninona	The Canadian Anthracite	Rituminous
Alberta Railway and	Cammore	The Canadian Anthracite Coal Co Alberta Railway and Irrigation Co Messrs. Daly and Lindsay	Diction in the constant
Irrigation Co., No. 3	Lethbridge	gation Co	1. "
Ltd	Edmonton	Edmonton Coal Co., Ltd Chas. G. Carnegie	"
Sturgeon river	Namao	Robert Kelly	"
White Star	Strathcona	Robert Kelly	"
Culley	Medicine Hat	Llos Culley	"
Crockford		Messrs. Crockford Bros	"
Bourts Coal Milling Co.,			
Ltd., Hassard Mine	Coalfields	Souris Coal Mining Co., Ltd	• • •
Souris Coal Mining Co., Ltd., Farmers' Mine.		Souris Coal Mining Co., Ltd	46
Souris Coal Mining Co.,			
Souris Coal Mining Co., Ltd., Roche Percee Mine No. 3		Souris Coal Mining Co., Ltd	"
Mine No. 3 Raith		Wm. Humberstone	"
Frank Collieries	Frank	The Canadian - American	
Funds Coul and Brick		Coal and Coke Co., Ltd	"
Eureka Coal and Brick	Estevan	Eureka Coal and Brick Co., Ltd	44
Souris Coal Mining Co.,		Souris Coal Mining Co.,	
Ltd., New Mine, No. 2	Coalfields	Souris Coal Mining Co., Ltd	
Galbraith	Cowley	R. J. Galbraitb	"
Essar	:Medicine Hat	M. Essar	"
Hoover	Rlairmore	T. Hoover	••
	•	Ltd	"
		Messrs. D. E. Riley and	"
Blackfoot	Gleichen	Blackfoot Indians Messrs, Dawkins and Speers Breckenridge - Lund Coal	
Breekenridge - Lund	Namao	Messrs, Dawkins and Speers	"
Coal Co., Ltd	Lubreck	Breckenridge - Luud Coal Co., Ltd	44
Bankhead	Bankhead	Pacific Coal Co	Anthracite
		C.P.R. Mining and Metal- lurgical Department	Rituminous
Sutherland	Coalfields	Roche Percee Coal Mining	
Bellevue	Blairmore	Co., Ltd	"
Dennison	Coleman	Ltd	
Brandt	Edmonton	F. A. Brandt	*6
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	W. J. Baldwin	"
Big Island	Strathcona	Messrs. Martin Bros	"
Morinville	Knee Hill Morinville	T. Hunt	"
		Frank Gillespie	"
	Edmonton	Edmonton Coal Co., Ltd	**
Kussell	Lethbridge	Geo. F. Russell	"
THING LIEUT.	manionton	Messrs, Evans & Robinson	

## MINES in Operation which were Opened previous to 1904—Continued.

NAME	LOCATION	OPERATED BY	CHARACTER OF COAL
	Clover Bar	Messrs. Fowler, Keith and	d
	l	Fulton	. Bituminous
	Edmonton	Messrs. Milner and Co	.' "
	. Cowley	Messrs. Milner and Co. Alberta Coal and Coke Co Silas Griffiths	
Ologon	Clover Ben	O. S. Radway	. "
5/10 ver	" " " "	Phillip Ottewell	
	Edmonton	John Cameron	. "
		Jas. Milner	. "
	Lineham	Messrs, Cooper & McPher	-
	77.1	son	• • • • • • • • • • • • • • • • • • • •
	Pincher Creek .	son	
Mi	NES Abandoned d	uring the Year 1904.	
N	1	000000000000000000000000000000000000000	Спакастек
<b>N</b> аме	LOCATION	OPERATED BY	OF COAL
H. W. McNeill C	0		
Ltd	Anthracite	The Canadian Anthracite	2
		Coal Co	. Anthracite
Milner	Edmonton	Jas. Milner	.  Bituminon
Certificates iss tions during the ye Wm. Price Wi Caleb Cox Sym	ued to candidates ear 1904: lliams	Henry Yardley	d examina
Certificates isstions during the year with the Windows	Edmonton	who successfully passed irmore, Alta. Malfields, Assa. If, Alta. Pithracite, Alta. Pithracite, Alta. Pithracite, Alta. Pithracite, Alta. Instructore, Alta. Instructo	d examina
Certificates issions during the year with the construction of the	Edmonton	who successfully passed irmore, Alta. Malfields, Assa. If, Alta. Pictracite, Alta. Pictracite, Alta. Pictracite, Alta. Ithbridge, Alta. Ithbri	d examina chager. t Boss
Certificates isstions during the year Wm. Price Wi Caleb Cox Sym John Bastian Wm. Musgrov. Raoul Green Samuel A. John Bastian Joseph Adelard Samuel McVice John William I George L. Fras Oliver Hall Wm. J. Spence Joséph James. Harry Gate Robert George Charles Chestn	Edmonton	who successfully passed irmore, Alta. Malfields, Assa. Inff, Alta. Programmer, Alta. Programmer, Alta. Programmer, Alta. Programmer, Alta. Informer, Alta. Inf	d examina  nager.  t Boss.  ""  ""  ""  ""  re Boss.  ""  ""  ""  ""  ""  ""  ""  ""  ""
Certificates issoions during the year Wm. Price Wi Caleb Cox Sym John Bastian Wm. Musgrov. Raoul Green Samuel A. Jone Robert George Charles Phillip John Bastian Joseph Adelard Samuel McVice John William I George L. Fras Oliver Hall Wm. J. Spence Joséph James. Harry Gate Robert George Charles Chestn Thomas Harris Thomas Wm. I	Edmonton	s who successfully passed airmore, Alta. Malfields, Assa. Inff, Alta. Prairmore, Alta. Prairmore, Alta. Prairmore, Alta. Infloridge, Alta.	d examina  nager.  t Boss.  ""  ""  re Boss.  ""  ""  ""  ""  ""  ""  ""  ""  ""
Certificates isstions during the year with the Caleb Cox Sym John Bastian.  Wm. Musgrow Raoul Green. Samuel A. John Bastian. Joseph Adelard Samuel McVice John William I George L. Fras Oliver Hall  Wm. J. Spence Joseph James. Harry Gate Robert George Charles Chestn Thomas Harris Thomas Wm. I David Thomas	Edmonton  aued to candidates ear 1904:  Iliams. Bla tons. Coa  Baa e. An Bla es. Let Duggan Fra s. Ba I Seguin Est ar. Fra McKean Let er. Co Bear. An Fra Coo Duggan Fra utt on. Ba Bastian Ba	who successfully passed irmore, Alta. Malfields, Assa. If, Alta. Pictracite, Alta. Pictracite, Alta. Pictracite, Alta. Inkhead, Alta. Ithbridge, Alta. Ithbridg	d examina  nager.  t Boss.  ""  ""  ""  ""  re Boss.  ""  ""  ""  ""  ""  ""  ""  ""  ""
Certificates isstions during the year Wm. Price Wi Caleb Cox Sym John Bastian Wm. Musgrow. Raoul Green Samuel A. Jone Robert George Charles Phillip John Bastian Joseph Adelard Samuel McVica John William I George L. Fras Oliver Hall Win. J. Spence Joséph James. Harry Gate Robert George Charles Chestin Thomas Harris Thomas Wm. L. David Thomas Robert Smith.	Edmonton  aued to candidates ear 1904:  Iliams. Bla tons Co Ba e An Bla es Let Duggan Fra s I Seguin Est ar. Fra McKean Let er Co Be er An Fra Unggan Fra ger Ba Con Ba Ba Ba Ba Ba Ba Ba Ca	who successfully passed irmore, Alta. Malfields, Assa. If, Alta. Pithracite, Alta. Pithracite, Alta. Ithbridge, Alta. Ithracite, Alta. Ithraci	d examina  nager.  t Boss.  ""  ""  re Boss.  ""  ""  ""  ""  ""  ""  ""  ""  ""
Certificates isstions during the year Wm. Price Wi Caleb Cox Sym John Bastian Wm. Musgrow. Raoul Green Samuel A. Jone Robert George Charles Phillip John Bastian Joseph Adelard Samuel McVica John William I George L. Fras Oliver Hall Win. J. Spence Joseph James. Harry Gate Robert George Charles Chestin Thomas Harris Thomas Harris Thomas Wm. I David Thomas Robert Smith Evan Henry Green Charles Chestin Thomas Thomas Robert Smith.	Edmonton  aued to candidates ear 1904:  Iliams. Bla tons Co Ba e An Bla es Let Duggan Fra s I Seguin Est ar. Fra McKean Let er Co Be er An Fra Col Duggan Fra utt on Ba Bastian Ba criffiths.	who successfully passed irmore, Alta. Malfields, Assa. If, Alta. Pinthracite, Alta. Pinthracite, Alta. Ithbridge, Alta. Ithracite, Alta. Ithra	d examina  mager.  t Boss.  ""  ""  ""  ""  ""  ""  ""  ""  ""
Certificates issions during the year with the construction of the	Edmonton  aued to candidates ear 1904:  Iliams. Bla tons. Coa  Baa e. An  Bla es. Let  Duggan Fra s. Ba I Seguin Est ar. Fra McKean Let er. Co  Bear. An  Fra Col  Duggan Fra utt on. Ba Bastian Ba criffiths.	who successfully passed irmore, Alta. Malfields, Assa. If, Alta. Pithracite, Alta. Pithracite, Alta. Pithracite, Alta. Mank, M	d examina  nager.  t Boss.  ""  ""  re Boss.  ""  ""  ""  ""  ""  ""  ""  ""  ""
Certificates isstions during the year with the year of	Edmonton  aued to candidates ear 1904:  Iliams. Bla tons. Co Ba e. An Bla es. Let Duggan Fra s. Ba d Seguin Est ar. Fra McKean Let er. Co Be er. An Fra Cool Duggan Fra utt on. Ba Bastian Ba criffiths.	who successfully passed irmore, Alta. Malfields, Assa. If, Alta. Pinthracite, Alta. Pinthracite, Alta. Ithbridge, Alta. Ithbridge, Alta. Ithbridge, Alta. Ithbridge, Alta. Ithbridge, Alta. Ithbridge, Alta. Ithracite, Alta. Ithra	d examina  nager.  t Boss.  ""  ""  ""  re Boss.  ""  ""  ""  ""  ""  ""  ""  ""  ""
Certificates isstions during the year Win. Price Wi Caleb Cox Sym John Bastian Wm. Musgrow. Raoul Green Samuel A. Jone Robert George Charles Phillip John Bastian Joseph Adelard Samuel McVica John William I George L. Fras Oliver Hall Win. J. Spence Joseph James. Harry Gate Robert George Charles Chestin Thomas Harris Thomas Win. I David Thomas Robert Smith Evan Henry Gatt Matt Mattson Hugh Smith Hugh G. McKi Thomas Haines	Edmonton  used to candidates ear 1904:  Iliams. Bla tons Co Ba e An Bla es Let Duggan Fra s I Seguin Est ar. Fra McKean Let er Co Be er An Fra Col Duggan Fra utt on Ba Bastian Ba riffiths.  Ca	who successfully passed irmore, Alta. Malfields, Assa. Ithracite, Alta. Pinirmore, Alta. Pinirmore, Alta. Ithracite, Alta. Ithridge, Alta. Ith	d examina  nager.  t Boss.  """  """  re Boss.  """  """  """  """  """  """  """
Certificates isstions during the year Win. Price Wi Caleb Cox Sym John Bastian. Wm. Musgrow. Raoul Green. Samuel A. Jone Robert George Charles Phillip John Bastian. Joseph Adelard Samuel McVica John William I George L. Fras Oliver Hall. Win. J. Spence Joséph James. Harry Gate. Robert George Charles Chestin Thomas Harris Thomas Wm. I David Thomas Robert Smith. Evan Henry Gatt Matt Mattson. Hugh Smith. Hugh G. McKi Thomas Haines John Stott.	Edmonton  used to candidates ear 1904:  Iliams. Bla tons Co Ba e An Bla es Let Duggan Fra s I Seguin Est ar. Fra McKean Let er Co Be er An Fra Col Duggan Fra utt on Ba Bastian Ba riffiths.  Ca	who successfully passed irmore, Alta. Malfields, Assa. If, Alta. Pinthracite, Alta. Pinthracite, Alta. Ithbridge, Alta. Ithbridge, Alta. Ithbridge, Alta. Ithbridge, Alta. Ithbridge, Alta. Ithbridge, Alta. Ithracite, Alta. Ithra	d examina  nager.  t Boss.  " " " " " " " " " " " " " " " " " "

Certificates issued under Section 17 of The Coal Mines Regulations Ordinance, during 1904.

## Manager Certificates.

Arthur Rupert Wilson	. Michel, B.C.
Robert G. Drinnan	. Fernie, B.C.
James Finlayson	
Robert Strachan	
Wm. Henry Wall	. Nanaimo, B.C.
Edward Everett Reynolds	Coleman, Alta.
Francis Henry Shepherd	Nanaimo, B.C.
Thomas Mills	"
Richard Nash Pearson	Frank, Alta.
Jas. Ambrose Richards	. Nanaimo, B.C.
Herbert Bertrand Wright	
Henry Lewis Manley	
David Richard Llewellyn	. Michel, B.C.
John John	. Fernie, B.C.
Thomas Russell	. Victoria, B.C.
George Herbert Broome	Frank, Alta.
Luke Raisbeck	Lethbridge, Alta.

Certificates of competency now held under The Coal Mines Regulations Ordinance.  $\,$  .

## Manager Certificates.

Dan Evans Michel, B.C. W. D. L. Hardie Lethbridge, Alta
W. D. L. Hardie Lethbridge, Alta
James J. Morris
John Little Coalfields, Assa.
Wm. Hamilton "
O. E. S. Whitesides
O. E. S. Whitesides
Edwin P. White Crow's Nest, B.C
James Hargreaves Fernie, B.C.
Thos. R. Stockett, Jr
Robinson Pearson "
Robinson Pearson
Cyrus Moiris
Archibald Waita ('calfielde Acca
Robert Livingstone Lethbridge, Alta James McEvoy Fernie, B.C. John Brown Banff, Alta. Wm. Addie. Frank, Alta. Daniel Elliott Blairmore, Alta.
James McEvovFernie, B.C.
John Brown, Banff, Alta.
Wni. Addie Frank, Alta.
Daniel Elliott Blairmore, Alta,
Charles Simister Morrissey, B.C.
David Wilson "
Elijah Heathcote. " W. F. Collins. Blairmore, Alta.
W. F. Collins, Blairmore, Alta.
John Leitch Parker North Star, B.C.
Charles Michael Henretta Banff, Alta.
Alexander Kerr Tonkin, B.C.
Arthur Rupert Wilson Michel, B.C.
Alexander Kerr
James Finlayson "
Robert Strachan "
Wm. Henry Wall
Edward Everett Reynolds Coleman, Alta.
Francis Henry Shepherd Nanaimo, B.C.
Thomas Mills "
Wm. Price Williams Blairmore, Alta.
Caleb Cox Symons Coalfields, Assa.
Richard Nash Pearson Frank, Alta.  Jas. Ambrose Richards Nanaimo, B.C.  Herbert Bertrand Wright Fernie, B.C.
Jas. Ambrose Richards Nanaimo, B.C.
Herbert Bertrand Wright Fernie, B.C.
Henry Lewis Manley "

,	
David Richard Llewellyn	. Michel, B.C.
John Bastian	. Banff, Alta.
John John	Fernie, B.C.
Thomas Russell	Victoria, B.C.
George Herbert Broome	Frank, Alta.
Luke Raisbeck	. Lethbridge, Alta.

## Pit Boss Certificates.

Gus Ostheidt	. Anthracite, Alta.
John Musgrove	Canmore Alta
Charles Emerson	"
Alfred Davis	Lathbridge Alte
T.O. Livingstone	. Dethoring , Arta.
J. C. Livingstone	
Robert Livingstone	
Hugh Scott	
T. H. Williams	Canmore, Alta.
Archibald Waite	. Estevan, Assa.
Cory Weatherby	Fernie, B.C.
Thos. Steele	. Frank, Alta.
Thos. Corkill	
H. R. Giffen	Coalfields, Assa.
W. G. Pearson	Frank Alta.
W. G. Flint	Anthracite, Alta
Wm. Musgrove	
Raoul Green	Rlairmore Alta
Surprol A Ionog	Lothbridge Alta
Samuel A. Jones	Donal Alta
Robert George Duggan	. Frank, Alta.
Charles Phillips	
John Bastian	Bankhead, Alta.
Joseph Adelard Seguin	. Estevan, Assa.
Samuel McVicar	. Frank, Alta.
John William McKean	Lethbridge, Alta.
George L. Fraser	Coleman, Alta.
Oliver Hall.	

## Fire Boss Certificates.

W. E. Watkins John Wilson J. W. Watkins	Canmore, Alta.
Wm. Cowan	
John James McKay	Hemoriage, Ana.
Robert Livingstone	4.6
Hugh Scott	"
Wm. Musgrove	Canmore, Alta.
Wm. Taylor Archibald Waite	Estevan, Assa.
Evan Jones	
John Anderson	Canmore, Alta.
Charles Phillips	Frank, Ana.
Wm. John Davies	
Samuel A. Jones	Lethbridge Alta
J. C. Livingstone	
H. R. Giffen	Coalfields, Assa.
Andrew Hood	Frank, Alta.
S. H. Turner	
Joseph Sedlock	
John Hadfield	
Thomas Downs	* *
Wm. J. Spencer	Anthracite, Alta.
Joseph James	Coleman Alta
Robert George Duggan	
Charles Chestnut	
Thomas Harrison	

Thomas Wni. Bastian	Bankhead, Alta.
David Thomas	
Robert Smith	. Canniore, Alta.
Evan Henry Griffiths	. "
Matt Mattson	. "
Hugh Smith	66
Hugh G. McKinnon	
Thomas Haines	Coleman, Alta.
John Stott	Lethbridge, Alta.
Henry Fairhurst	
Robert Harvie	. "

CALGARY, January 3, 1905.

JNO. STOCKS, Esq.,

Deputy Commissioner of Public Works, Regina, Assa.

Str,—I have the honour of presenting my report as Inspector of Coal Mines for the North-West Territories, for the year ending the 31st of December, 1904. Taking up the subjects as required by the Lieutenant Governor in Council in the appointment of an inspector under sections 34 and 35 of the Coal Mines Regulations Ordinance, No. 9, 1898.

The output of the coal mines in the Territories has considerably increased during the past year, and the number of mines added to the list is five. The total number of mines that have been opened since a tabulated list was compiled by the department is ninety-three (93). A short summary of the statistics for 1904 is as follows:

Numb	er of	Mines opened in the district	93
64	6.6	" known to be in operation	51
6.6	4.6	tons produced in 1904	782,931
66	66	persons employed in the mines	1,482
"	"	persons employed outside the mines	537
"	46	fatal accidents in the mines	5
66	66	fatal accidents outside the mines	1

The following companies have been the largest producers during the past year:

The Alberta Railway & Irrigation Co.—Lethbridge, Alta. No. 3 shaft. The Canadian-American Coal and Coke Co.—Frank, Alta. No. 1 entry, No.

2 entry and No. 3 shaft.

The West Canadian Colliers, Ltd.—Blairmore, Alta. Nos. 1, 2 and 3 entries at Little Colliery. No. 1, entry at Bellvue Colliery.

The International Coal and Coke Co.—Coleman, Alta. No. 1 entry and

No. 1 slope.

The H. W. McNeill Co.—Canniore, Alta. No. 1 slope.

The H. W. McNeill Co.—Anthracite, Alta. No. 1 slope (now abandoned).

The Souris Coal Co.—Coalfields, Assa. Nos. 1, 2, 3 and 4 entries, and No.

1 slope.
The C.P.R. Mining and Metallurgical Dept.—Bankhead, Alta. Nos. 1, 2

and 3 entries and No. 1 slope.

The C.P.R. Mining and Metallurgical Dept.—Bienfait, Assa.

The Breckenridge-Lund Coal Co.—Lubrek, Alta. No. 1 entry. The Breckenridge-Lund Coal Co.—Lubrek, Alta. No. 2 entry. The Eureka Brick & Coal Co.—Estevan, Assa. No. 2 entry. The Roche Percee Coal Mining Co., Ltd.—Roche Percee, Assa. No. 1 entry. The Edmonton Coal Co.—Edmonton, Alta. Nos. 1 and 2 entries. The Mays Coal Mining Co.—Edmonton, Alta. Nos. 1, 2 and 3 entries. The James R. Stewart Mining Co.—Edmonton, Alta. Nos. 1 and 2 entries. The Knee Hill Coal Co.—Knee Hill, Alta. No. 1 entry.

There are many other individual coal mine operators who have produced a fair output in the Edmonton, Estevan, High River, Crows Nest and Medicine Hat districts, which are all included in the total of the Territories for 1904. Quite a few small mines are in operation in outlying districts that have not as yet been visited, and in some cases I think, no returns have been made; this I consider an oversight on the part of the operators, as the more publicity that is given to their districts, this their resources the larger will be the community to eventually consume their product. The Alberta Railway and Irrigation Co. have changed their title during the past year, eliminating the word "Coal," but this far from being a sign of the company going out of the coal market, has seemingly given a new impetus to them, as their eoal production this year exceeds any previous one.

The hoisting plant at this colliery, although a comparatively old one, will be hard to beat in any coal field; the record was reached this year when over 2,000 tons of material was hoisted in ten hours. The ventilating plant has been relieved to a certain extent by a connection being made to No. 4 shaft.

The endless rope haulage has been extended to suit the requirements of the eolliery; a new box car loader was installed but did not prove suitable to handling the class of coal.

Other improvements have been made on the plant in proportion to

the increased output.

The Canadian-American Coal & Coke Co. have within the past twelve months overcome the difficulties that beset them after the terrible landslide of April, 1903, which practically wiped out their whole plant. The old entry has now been thoroughly opened out with good connections to the surface; a new fan installed and now the company are busy putting in a main and tail rope haulage, also a box car loader to facilitate shipments. All the work at the new shaft has been completed and ready for hoisting eoal.

No. 2 Adit Level on the north side of the railway, has for the present been stopped as they can supply their demands with the present

workings.

The West Canadian Collieries, Ltd., have made an amalgamation of

three properties, viz.—at Lille, Bellvue and Bryron Creek.

At Lille their work is now concentrated at No. 1 opening where a new tipple plant has recently been erected. The small coal from this colliery is all eoked, the production of the ovens being over 100 tons per

At this company's Bellvue colliery development work has already progressed during the past year, that now they are capable of giving an

output of 400 tons per day.

Bryron Creek Colliery has been closed for the present as all

prospecting work has been completed.

The International Coal and Coke Co. has one of the model plants in the district. This mine although opened little more than a year ago is one of the large coal producers in the Pass. All their railway sidings have been completed, the tipple plant with hoisting arrangements, selfdumping cages and sereening apparatus to place eoal on the market for domestic, steam and coking use. Their ventilating fan with electric motive power is eapable of producing 150,000 cubic feet of air per minute. A high pressure compound air plant has been completed by which their 7 ton air locomotive can be charged at three separate points and capable of drawing 30 loads on a  $\frac{1}{2}$  per eent. grade. This is the first air locomotive that has been introduced in the district and is proving a

great success. The main entry is in about 3,000 feet driven in a 14 foot seam and about 1,000 feet in this gangway the measures have been crosscut to a 6 foot seam which is an excellent coking coal.

A slope has been driven on this 6 foot seam to attain greater depth

of working.

The H. W. McNeill Co. at their Canmore mines have been working steadily all year and their output will exceed the production of any previous year. The development of the mine has been carried vigorously until the production for one day is over 600 tons.

Many new improvements have been made at this colliery during the past year so as to improve the quality of the coal put on the market, and

also to facilitate quicker shipping.

A new Phillips tipple has been built with creeper chain to bring the cars back to the top of the slope. After the coal has been dumped it is passed over shaker screens, and the lump and small elevated separated over picking tables at the end of which they are dumped together into large hoppers or coal bins. The coal from this mine is nearly all used for steam purposes, and the loading from these large coal bins can be done much quicker than by the old method of straight dumping into the box cars. The company are now erecting a new fan capable of producing 100,000 cubic feet of air per minute, which will allow of the workings being extended to a much greater distance than they are at present.

The H. W. McNiell Co. at Anthracite closed down this mine in

June last on account of litigation with the adjoining property.

The Souris Coal Co. have again increased their output to what it was in former years, and no doubt the way in which this coal is taking the market through Estevan, Assiniboia and Manitoba, the increase will come year by year. The Company have now taken a wise step and started to open up a slope about the centre of their property and so concentrate all their work at one point.

A modern hoisting and tipple plant is to be erected at these new

works.

The C.P.R. Mining and Metallurgical Dept. have put in a modern plant at Bienfait, Assa. The work here, however, has only been development, but executed in such a manner that should the other collieries in the district not be able to supply the demand then rooms can be immediately opened out and the production made equal to the demand.

The C.R.R. Mining and Metallurgical Dept. at Bankhead Mine, five miles from Banff, has pushed ahead the development work of their mines, erected a very large and modern plant and for the comfort of their employees have built one of the most modern mining villages on the continent. The mine is situated at the base of Cascade Mts., the seams having a general strike north and south, with a pitch varying from 40 to 75° dipping to the west. No. 2 gangway is in over 2,000 feet with very little sign of faulting. The main tunnel, at which point the permanent tipple plant is to be erected has now been connected with No. 2 seam and started again to crosscut the measures to tap all the other seams. The ventilation at present is by exhaust fan, capable of handling the work for some time but new and more powerful fans have been ordered so that each seam as it is developed will be ventilated separately.

The Breckenridge Lund Coal Co. have done considerable development work during the past year, and are now preparing to put up a new

scientific plant alongside of the railway tracks.

The Eureka Brick and Coal Co., also the Roche Percee Coal Mining

Co. are fastly developing the lignite field of South Estevan.

The Edmonton Coal Co., The Mays Coal Mining Co. and the James R. Stewart Mining Co. all operating in the Edmonton district are the pioneers of what must soon be a larger company probably an amalgamation of interests.

The Knee Hills Coal Co. Knec Hill, Alta. These mines although worked for a few years past in a desultory manner to supply a few ranchers the country is now filling up so fast that the company have now taken the matter up seriously and will develop accordingly until a railroad reaches them which should be in the near future.

#### Accidents.

The record of accidents fatal and non-fatal is, I think, more complete

as far as statistics are concerned than in any previous year.

The tonnage output of the Territories has largely increased during 1904 and consequently the number of men employed has proportionately increased; I am pleased to say that the accidents have not increased in the same proportion although more minor accidents have been reported, this is more on account of the different managements taking more cognisance to our mining regulations.

In this connection I would respectfully draw your attention to the introduction of some amendments in our Coal Mines Regulations Ordi-

nance, especially with regard to ambulance work.

Appended is a tabulated statement of the accidents which have been reported in 1904.

	ANNUAL KEPORT 1904
REMARKS	Leg broken; crushed between mine car and post bijured by fall from rocf; died 3 days later Slightly injured falling in front of cars Slightly injured between railway cars Fatally injured between railway cars Thigh fractured; fall of rock Yuffocated by fall in chute and covered with coal with coal Sightly burned, face and neck Slightly burned Sightly burned Sightly burned between mine car and post Fatally injured between mine car and post Fatally injured between mine car and post Fatally injured by shot blowing into cross-cut crowding on cage Fatally injured by shot blowing into cross-cut Sightly burt between car and chute Burned face and neck slightly burt between car and chute Burned face and neck slightly hurt between car and chute Burned face and neck slightly hurt between car and chute Burned face and neck slightly hurt between car and chute Burned face and neck slightly Hip dislocation; fall of rock
OCCUPATION	Labourer  Miner Labourer Miner  " " " " " " Trapper Miner  Trapper  Miner  Miner  Miner  Labourer  Miner  Labourer
NAME	David Arnot. Fred Basista James Featherstone Steve Batute John Chuchnuck John Gorek M. Guidnor Antonio Gerny H. Grewcutt, Jr. Joe Thomas, Sam Mclean G. Fauton M. Maestro P. Botes. J. Jonostick N. Gentner Steve Kuhan G. Garbhar Steve Kuhan G. Garbhar P. Kardink J. Bailey
MINE	Souris No. 2 J. R. Stewart Mine Souris No. 2 Humberstone Mine Outside Souris Mines Cannore Lethwidge Frank Lille Coleman Lundorek Frank Coleman Lethbridge Souris Coleman Lethbridge Souris
DATE	Feb. 23.  April 4.  April 4.  " 26.  May 18.  " 21.  July 13.  " 10.  Sept. 2.  Nov. 22.  Doc. 10.  " 5.
NO.	- nearan-a edunationicae gagga

## Work of Inspection.

The larger mines in the Territories have all been visited six times,

and when nccessary oftener during 1904.

The smaller mines inspected every three months. The large extent of territory and the number of mines to be visited now occupies much more time than it did during previous years, and on this account I find it more advantageous to visit the extensive collieries oftener and so keep in touch with their development.

On these occasions the plans are examined, certain districts, mapped out to go to but visiting the main intake and main returns always. Here again I would respectfully ask you if possible at the next session of the Legislature that amendments be introduced into the Ordinance which amendments would greatly facilitate my work of inspection. My reports of inspection have been made to the department after each visit to a colliery and then all details as to the workings have been gone into. This past year I have taken up the statistics of the different collieries with regard to ventilation, pumping, haulage, rails used, modes of working, lights used, machinery, etc., and have them tabulated for information of the department at any time; the quality of the coal in the different districts I also looked up, and the following is an approximate analysis of the same.

### Crows Nest District.

$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
Cowley District.				
1.   3-7   Vol. com. matter.   53-6   Fixed carbon.   31-8   Ash.   10-9				
Lethbridge District.				
1.   Moisture.   7:42   Vol. com. matter.   43:83   Fixed carbon.   44:92   Ash.   3:83				
Souris District.				
1.   Moisture.   16:92   Vol. com. matter.   38:58   Fixed carbon.   40:72   Ash.   3:78				
Canmore and Bankhead.				
Moisture         1. 45         1.6 41         41           Vol. com, matter,         13.01         14.7 12.00         12.00           Fixed carbon.         84.04         79.0 83.78         83.78           Ash         2.50         4.7 3.81				

#### Examinations.

The work in connection with examinations was increasing so rapidly that it has been decided to hold them only twice a year, dividing the Territories into three separate districts, Canmore, Crows Nest and Coalfields. The applicants for the different certificates in 1904 were so numerous that seven examinations had to be held, and of these 16 passed for fire boss, 10 for pit boss and 4 for mines manager's certificate.

During the year I had several complaints from mine managers with regard to the incompetency or lack of getting good officials, so that I have been compelled to entirely cancel all the old examination papers and each examination will now be different from the previous one. In the case of pit boss or fire boss the board of examiners reserve the right to give these candidates a thorough viva voce examination. It is pleasing to note the interest that is now taken by the miners to pass these examinations, each one seeming to strive with the other to see who will receive the largest percentage. Some of the papers examined this year by the various boards have surpassed anything that was ever before presented to them. Many of these certificated men have not the Ordinance and I think it would be wise to include this in the annual report sending a copy to each official on the department's list.

## Coal Mining Prospects.

The prospecting and location of the new coal areas in the Territories is still vigorously carried on.

The eye of the public has been so favourably attracted by the bright prospects of the future Territories that there is no trouble in securing capital to develop any reliable company's holdings.

All the different coal districts show a remarkable increase in population and the companies operating in them are certainly keeping up their improvements to meet the increased demand.

I have the honour to be, sir,
Your obedient servant,
FRANK B. SMITH,
Inspector of Coal Mines.

### THE STEAM BOILERS ORDINANCE.

Inside staff	 (1 clerk in charge (1 stenographer

As in previous reports, it will be observed that this year there is an increase in all sections of work connected with The Steam Boilers Ordinance.

The staff of inspectors remains the same as last year with one exception, and in this instance a new appointment was made. Inspector W. M. Carment, appointed March 22nd, 1900, tendered his resignation on May 31st, 1904, but owing to the difficulty in obtaining another inspector, it was not possible to relieve him from duty until August 4th. Mr. Carment was in his fifth year of service as an inspector, and during the whole of this time performed his duties in an entirely satisfactory

manner. Between the first of the year and the date of his leaving the service Mr. Carment inspected 119 boilers, and held a number of examinations for engineers.

To fill the vacancy on the staff caused by Mr. Carment's resignation, Mr. David Fraser, of Strathcona, was appointed. He commenced his duties in the South-eastern Assiniboia District, but later returned to Strathcona, as owing to the large increase in the amount of work to be done in Alberta, his services were found necessary to take over the northern part of Inspector Buxton's district, and he has been permanently appointed to that portion of the Territories.

The following are the names and addresses of the Inspectors:

Wm.	Waller.		 	 	Whitewood
$\mathbf{w}_{\mathbf{m}}$ .	Mayhew		 	 	. Whitewood
Jos. E	Buxton	<b>.</b>	 	 · · · · · · · · · · · · · · · ·	Calgary
David	Fraser.			 • • •   • • • • • • • • • • • • • • • •	Strathcona

Some changes were made in allotting inspectors to different districts than they had previously covered. On this account the increase in the number of boilers inspected does not appear as marked as last year, although from data in the hands of the inspectors it is known that the number of boilers in the Territories is increasing very rapidly. There is still one district to which no inspector has been appointed to devote his whole time, but it is in the hands of Inspector Mayhew, who has the North-eastern Assiniboia District, until a new appointment can be made.

The schedule given below shows the ground covered during the past year in connection with the administration of this Ordinance. It also draws a comparison between the work of the year 1903 and 1904:

	,	1 1:	
	1903	1904	Increase
Number of boilers inspected	1125	1192	67
Number of examinations of engineers held	178	261	83
Number of first class engineer's certificates issued		5	
Number of second class engineer's certificates		1	
issued	39	58	19
Number of third class engineer's certificates			
issned	144	199	55
Number of provisional certificates of qualification			
issued		583	173
Number of permits for operation of steam boilers			
issued	42	49	7
logic delicities and a second			•
Fees collected:			
For inspection of boilers	\$5,680.00	⊢\$6,250.00 □	\$570.00
For final certificates under section 28		87.00	
For examination of engineers	663.00	783.00	207.00
For provisional certificates	1,242.00	1,746.00	504,00
For permits for operation of steam boilers	126.00	147.00	21.00
Totals	\$7,711.00	\$9,013.00	\$1.302,00

In addition to the certificates recorded in the above schedule as issued, some 28 second provisional certificates have been issued, under subsection 2 of Section 29, to engineers who failed to pass their examination for a final certificate.

It will be observed that the number of final certificates issued is small compared with the issue of provisional certificates.

There has been an increase of \$1,302.00 in the amount of revenue collected.

It is very gratifying to be able to report that no accident has occurred during the past year, for which the condition of a boiler is accountable, although there are nearly twelve hundred in operation.

accountable, although there are nearly twelve hundred in operation.

The annual reports of the staff of inspectors, and a list of all Final

Certificates issued to date, are submitted herewith:

Whitewood, December, 31st, 1904.

JOHN STOCKS, Esq.,

Deputy Commissioner of Public Works,

Regina, Assa.

Sir,—I have the honour to submit my annual report as Inspector of Steam Boilers for the year 1904 in accordance with Section 19 of The Steam Boilers Ordinance.

The number of boilers inspected by me during the past year is 285, which may be classed as follows:

Locomotive traction	40
" portable	65
" " portable	
" vertical	3
Total —	

## Conditions of Boilers.

Good		 									 					٠.					Ş
Very fair																					
Fair	 	 ٠.						 													
Poor								 			 										
Bad									•												

The last one I condemned as unfit for further use. Repairs were ordered on 35 boilers; new steam gauges on 3 and new safety valves on 4. In all 71 boilers came in during the year of which 57 were new, and 14 had been in use before.

At the end of July I was transferred from the South-eastern to the North-eastern Assimilation District through the resignation of Mr. W. M. Carment of Yorkton. Up to that time I had inspected 146 boilers, and since being transferred I have inspected 139.

I have held 22 advertised examinations, and others I have had to arrange as I was passing through my district to accommodate engineers living at a distance from the towns, as they say they do not know of the examinations being held until it is too late. I have held these examinations to assist in supplying the need of certificated engineers as owing to the large increase in the number of boilers every year the demand for certificated men is not kept up with.

I have no accidents or casualties to report in my district during the past year.

I have the honour to be, Sir,

Your obcdient servant,

WM. MAYHEW,
Inspector of Steam Boilers,

STRATHCONA, December 31st, 1904.

JOHN STOCKS, Esq.,

Deputy Commissioner of Public Works, Regina, Assa.

SIR,—I have the honour to submit to you my annual report as Inspector of Steam Boilers for the the year 1904 in accordance with Section

19 of the provisions of The Steam Boilers Ordinance.

I commenced my duties in North Alberta on the 27th of August, and on the 19th of September was assigned the South-eastern District of Assiniboia as my field of work. During the season I inspected 131 boilers. Of that number 49 were new and 5 had been brought into the district from other places.

The number of the different classes and their condition are as

follows:

Locomotive fire box	102
Return tubular	
	13
Upright tubular,	1

Of this number 125 were in good condition, and six in fair condition. Various repairs were ordered in nine boilers, also three new safety

valves, and two steam gauges.

Owing to the scarcity of engineers during the threshing season, I had to issue seven permits to people who could not get men with certificates. I received application for 44 provisional certificates. I held an examination in Strathcona and also at five different points in Assiniboia, where 44 candidates wrote for final certificates.

There have been no accidents or casualties reported to me during

the season.

I have the honour to be, Sir, Your obedient servant. DAVID FRASER. Inspector of Steam Boilers.

WHITEWOOD, December 31st, 1904.

John Stocks, Esq.,

Deputy Commissioner of Public Works,

Regina, Assa.

SIR,—I have the honour to submit to you my fifth annual report as

Inspector of Steam Boilers.

As in previous years I was instructed to proceed to Battleford to overhaul the steam ferry and put the boat in the water, which was done successfully. Owing to the ice jam and the sudden rise of the water at the same time, the work of caulking the boat was delayed. The ferry was running on May 7th, after which I commenced the inspection of steam boilers in the Battleford district.

The number of boilers is increasing very rapidly. I have inspected 326 boilers during 1904. Of this number 50 had not been inspected before as far as I could find out. There are some eight or ten boilers which have not been inspected this year, but it will be seen by my returns that I made every effort to get around to them all before it froze up.

The following is a description of the boilers inspected:

Locomotive fire box, traction.	160
portable	47
Return tubular "	8
" traction	45
" stationary	8
Tubular stationary	30
Riveted tubular stationary	7
Locomotive fire box with return tubes, traction	8
" portable	<b>2</b>
Upright tubular, portable	7
" "stationary	$^{2}$
Water tubular	2
Total	$-\!-\!326$

Inspected 274 in good condition; 51 in fair condition and one in bad condition.

It is to be regretted that some firms are supplying very inferior steam gauges, the principal defect being that no hair spring is provided to hold the finger from indicating five or ten pounds more or less. Because of this the steam gauges are very difficult to set to indicate the same as the test gauge.

As in the lock pop safety valve, I think the department should do something to prevent the use of such steam gauges and protect the public against fraud in this respect, especially the threshers, for it is principally with them the unprincipled dealer tries to sell his trash.

I have the honour to be, Sir,

Your obedient servant,

WILLIAM WALLER, Inspector of Steam Boilers.

Calgary, December 31st, 1904

John Stocks, Esq.,

Deputy Commissioner of Public Works,

Regina, Assa.

SIR,—I have the honour to submit my annual report for the year 1904 as Inspector of Steam Boilers in accordance with Section 19 of The Steam Boilers Ordinance.

During the past year I held examinations at various parts in the District.

Applicants for First Class Certificates 2	
" Second " "	
" "Third " " 60	including
" Second " "	as tollows:
1st Class	. 2
2nd ,,	. 16
3rd	. 55
Failed, or recommended for Second Provisional Certificates:	5

The number of boilers inspected by me during the past year was 332. The following is a description of boilers inspected:

Locomotive and portable fire box type	121
Horizontal tubular	93
Horizontal flue and furnace type	19
Return tubular	45
Water tube	
Upright tubular	42
Upright cross sectional	6
Total	332

I found these boilers in the following condition:

Good		٠.			 						٠.									 		25	3
Very	fair.	٠.	٠.	٠.		٠.		٠									٠			٠	 	6	1
Fair			 				٠.				 	 										13	8

Repairs were ordered on six boilers this year, one boiler in particular was badly damaged, and a new crown sheet and retubing had to be ordered.

There are ten boilers not in use in this district, also eight new ones

almost ready to operate.

There has been a steady improvement in the boilers in my district, which without doubt is largely due to the provisions of The Steam Boilers Ordinance. Many of the larger companies are ordering larger boilers built on modern principles to carry a high pressure of steam. I would advise all owners who contemplate installing large boilers to have them slung with a yoke or truss, and in this way strengthen and improve the condition of their plant. I know of several firms who have had to replace the walls of the plant as well as some of the brackets on the boilers where the necessity for this could have been prevented had the back end of the boiler been slung as stated. If this advice were carried out very little trouble would result in the way of failure of walls. I have the honour to be, Sir,

Your obedient servant,
Jos. Buxton.
Inspector of Steam Boilers.

## SCHEDULE of Holders of Certificates of Qualification under The Steam Boilers Ordinance.

		× - ×
NAME	ADDRESS	DATE OF ISSUE
	First Class	
Archibald, Harry P Allan, John S. B	Lethbridge	15 August, 1900 7 August, 1903
Brisette, Narcisse	Morinville Prince Albert. Calgary	28 March, 1899  29 August, 1901
Cook, George	Calgary. Regina. Kamsack Coalfields Calgary. Qu'Appelle Station Edmonton Ponoka	5 June, 1900 18 July, 1901 16 October, 1903
Evans, Daniel	Edmonton	28 March, 1899
Fraser, David	Strathcona	9 October, 1899 11 April, 1901
Gale, Ernest A	Calgary	6 November, 1903

# $\begin{array}{c} \textbf{Schedule} \ \ \text{Ordinance-Continued.} \end{array}$ Boilers Ordinance-Continued.

NAME	ADDRESS	DATE OF ISSI'E
	First Class—Continued	
Hicks, Robert	Indian Head. Rossetti Edmonton Heduesford Edmonton Grenfell.	24 December, 1900 18 December, 1901 28 August, 1902 8 April, 1904
Jackson, John A	Strathcona	23 October, 1900
Kirkland, Thomas Kelly, John	Yorkton Edmonton	28 March, 1899 1 December, 1903
Liston, Robert F LeCain, H. C	Battleford	29 March, 1899 29 January, 1903
Mayhew, William	Broadview	28 March, 1899
McNaughton, Peter	Fort Qu'Appelle Edmonton	28 March, 1899 9 October, 1899 22 November, 1904
Niven, Robert	Lethbridge	28 July, 1900
Roop, Warren E	Moose Jaw	15 November, 1900
Smith, Percy Lewis Smith, John McKenzie	Lethbridge	4 April, 1899
Turgeon, Cleophas Taylor, George R	Edmonton Strathcona Calgary	28 March, 1899
Waller, William Wilcox, Wellington C.	Whitewood	6 November, 1900 25 April, 1901
Yates, David	Banff	5 July, 1901
	Second Class	
Angus, Robert.	Qu'Appelle Station Moose Jaw. Moosomin Calgary. Yorkton Angus Ridge Saltcoats Arcola Lippentott.	2 October, 1901 13 July 1903
Bourns, R. H Boden, T. W. Bainhouse, Win. Beare, W. J. Burkholder, H. J.	Calgary. Whitewood Weyburn Edmonton Indian Head Stratheona Red Deer. Calgary.	8 April, 1904 11 May, 1904 26 May, 1904 14 September, 1904 15 October, 1904

Schedule of Holders of Certificates of Qualification under The Steam Boilers Ordinance—Continued.

		polizina
NAME	ADDRESS	DATE OF ISSUE
	Second Class—Continued	
Biery, Charles	Strathcona	7 March, 1900
Barley, George T	Prince Albert	28 May, 1900
Brydges, Alonzo H	Moosomin	30 May, 1900
Bierworth, Ernest	Carnduff	19 July, 1900
Blirke, Fred	Gainsborough Edmonton	7 August, 1900
Payor Hopey	Indian Hand	23 October, 1900
Brown John E	Indian HeadSpy Hill.	24 December 1900
Blain, J. W		31 December, 1900
Blair, Andrew	Lumsden	23 November, 1900
Rishon Walter	Oxhow	20 April 1901
Bennett, Joseph	Arcola	29 May, 1901
Bull, Francis W	Yorkton	16 August, 1901
Bannerman, James A	Arcola. Yorkton. Red Deer. Lacombe. Sintaluta	18 December, 1901
Brownlow, Henry A.	Lacombe	23 December, 1901
Bell, Harry J	Sintaluta	19 February, 1903
Bowden H S	Edmonton	13 May, 1903
Bull. Edmund W	Regina	28 Angust, 1903
	)	
Cope, Edmund G. M	Lethbridge	30 June, 1899
Clark, W. Harold	Edulonton	9 October, 1899
Cumming, Thomas C	Whitewood	15 November, 1899
Conn David	Alameda	22 Manada 1000
Clow Charles	Lethhridge	25 March, 1900 25 April 1000
Chalmers, Walter N	Edmonton	28 May. 1900
Collopy, Thomas	Alameda	19 July, 1900
Cullen, James E	Calgary	21 February, 1901
Croft, J. Thomas	Carievale	15 April, 1901
Codd, Ernest	Wapella Ponoka	23 January, 1902
Clifford Robert A	Strathoona	12 May 1002
Cooper Thomas	Strathcona	15 Sentember 1903
Cole. Henry	Halbrite.	24 September, 1903
Chanman, A. B	Red Deer	18 April 1904
Clark, Eldon	Carnduff	27 May, 1904
Clements, Lewis J	Arcola	19 July, 1904
Callery, Frederick	Calgary.	12 September, 1904
Donaldson, Maxwell	Lethbridge	  23 March, 1900
Dickson, William	Oxbow,	19 July. 1900
Donald, J	Moosomin	29 September, 1900
Dyck, Abraham	[Waldheim	20 November, 1900
Dimmick, W. J	Fleming	24 December, 1900
Darragh, Joseph	Oxbow	20 April, 1901
Drain, William Doughty, James	Prince AlbertCalgary	30 May, 1901
Doob Fundamiak I	Hillouden	500 A L 1001
Dagleish, Thomas	Wapella. Wetaskiwin. Strathcona Regina. Pincher Creek	ao arugust, tivi
Dresser, Bertram W	Wetaskiwin	18 October, 1904
Drees, Max L	Strathcona	"
Decker, W. H	Regina	10 November, 1904
Drager, J. A	ringner Greek	30 December, 1904
Evans, Harry W	Anthracite	13 February, 1900
Eddy, Alexander	Medicine HatStrathcona	5 November, 1900
Emery, Ray E	Strathcona	15 October, 1904

 $\begin{array}{c} \textbf{Schedule} \ \ \text{Of Holders of Certificates of Qualification under The Steam} \\ \text{Boilers Ordinance} \\ \hline \end{array}$ 

	· — ,	
NAME	ADDRESS	DATE OF ISSUE
	Second Class—Continued	
Flolliott, L. H	Grenfell	29 September, 1899
Fitzgerald, Walter G	Belle Prairie	. 25 April, 1900 - 24 January 1001
Fotbergill, Charles	Glen Adelaide	111 April. 1901
Foster, James	Glen Ewen	30 April. 1901
Fletcher, Thomas	Hillfarm	2 July, 1901
Freeman, Mantred,	Lethbridge	18 Angust, 1902
Finn, James E	Calgary Fort Qu'Appelle.	9 February, 1902
Frame, James F	. Lethbridge	6 October, 1903
. Fleetwood Howard A	E'dinonton	15 October 1004
Fraser, Will	Stratbeona Prince Albert Winnipeg Moosomin.	16 Nonember 1004
Friesen, A. B.	······································	23 November, 1904
Finlay, David M	Moosomin	15 December, 1904
		'
Green, George	Moose Jaw	29 September, 1899
Goodfellow Willard R	Wolseley	25. April, 1900 28. May 1900
Goodman, J	Moosomin	29 September, 1900
Gibson Evad A	6.6	- 66
Gamble, Alva H	Moose Jaw	15 November, 1900
Green, Frederick W		.13 December, 1900
Gilchrist, Peter	Calgary	14 September 1901
Garratt, Lyle E	. Grenfell	25 August, 1902
Griffiths, Edward	Eastview	14 September, 1904
Garneau, Alexander	.!Stratbeona	15 October, 1904
Garner Geo	. Calgary	128 October, 1904
	T .	
Hubbard, Sydney T	Edmonton	9 October, 1899
Hennigar, Edward J	***	10 NT 1 1000
Haines Alfred H	. Whitewood	18 November, 1899 7 March 1900
Hillis, Henry	Medicine Hat	23 March, 1900
Humphrys, William	Cannington Manor	19 July, 1900
Holden, Albert	Indian HeadCalgary	5 September, 1900
Hicklin, John William	Calgary	29 September, 1900
Hiscox Thomas S.	Regina	66
Hunt, Artbur	Wapella	11 April, 1901
Hames, Alfred A	Wapella Oxbow	20 April, 1901
Howell, Edward	Battleford	30 May, 1901
Hillie Thomas	. Maryfield	3 February, 1902
Hammett, Richard	Wolselev	25 August, 1902
Hardy, Rowan F	Wolseley	!
Hennig, Michael	Calgary Dundurn Moosomin	10 October, 1902
Hanson, Michael	Dundurn	15 May, 1903
Henry, Chas	Stratbcona	18 April 1904
Hobson, Francis W		15 October, 1904
Heatley, Wm	. Beaumont	28 October, 1904
Irwin, Lester J	. Strathcona	15 October, 1904
Jones, Frederick W	Strat becona	9 October, 1899
Judd, David H	Calgary	5 October, 1901
Jones, William C	. Indian Head	4 October, 1902
Jarratt, Edward	Strathcona	15 October, 1904

Schedule of Holders of Certificates of Qualification under The Steam Boilers Ordinance—Continued.

NAME	ADDRESS	DATE OF ISSUE
NAME	ADDRESS	DATE OF ISSUE
	Second Class—Continued	
Keenan, James S	Moosomin	21 March, 1900
Kerr, William	Lethbridge	23 March, 1900
Kidd, Frederick	Calgary	14 June, 1900
Keith, John	Calgary Fitzmaurice	l4 August, 1900 📑
Kowalczyck, Antoine	St. Paul des Metis	l6 February, 1901
Cearns, William	$[{ m Qu'Appelle~Station~\dots}]$	26 August, 1901
Cohlruss, Johann	Balgonie Portal, N.D	30 August, 1901
Cennedy, Edwin R	Portal, N.D	27 August, 1903
Kaldec, J. J	Wetaskiwin	18 April, 1904
yon, William	Moffat	5 September, 1900
aidlaw, Robert	Grenfell	24 December, 1900
app, Charles T	Alameda	20 April, 1901
acey, William R	Calgary	10 October, 1902
amoureux, Alphonse	Calgary Lamoureux Wapella	18 December, 1902
ewis, William C	Wapella	15 September, 1903
Avingston, John	Carnduff	la December, 1904
Iacey, Charles R	Oxbow	15 November, 1899
lore, Robert	Bredenbury	16
doran, Austin	Lethbridge	23 March, 1900
Morden, Phillip A	Moosomin	11 April, 1901
varsnan, Charles H	Camanit	••
Interest, George A	Abernethy. Spy Hill Broadview	9 September, 1901
Applaine Charles	Spy Hill	is September, 1901
Granding, Unaries,	O-buses	2 October, 1901
dinty Charles I	Oxbow Ferndale	o October, 1901
America James W	Grenfell	os Fobrany, 1905
Jarshall Frederick I	Kamloops, B.C	14 Angust 1903
Aitchell Samuel D	Percy	i iiigust, tion
Joxon, Frederick I	Percy	22 Anonst. 1903
Jorrison, John S	Gleichen	24 September, 1908
lavhew, W. H	GleichenWhitewood	8 April, 1904
Iortimer, Samuel M	Strathcona	26 May, 1904
Iunro, J. W	Indian Head	0 October, 1904
${\bf Iatheson, Daniel}$	Brookside	9 October, 1904
Iarshall, Gilbert	Regina	0 November, 1904
IcKay, Daniel	Lethbridge	30 June, 1899
lcBeth, William M	Prince Albert :	28 May, 1900
IcGee, Thomas	Whitefish Lake	l4 June, 1900
leGuirl, John	Moosonin	19 July, 1900
rcDongail, John	Regina Prince Albert Regina	28 July, 1900
IcEwen, Duncan	**	29 September, 1900
IcBride, William L	Prince Albert	20 May, 1901
Icinnis, Neil D	Regma	21 June. 1901
IcDonald, Allan	ί. 	" Manton bon 1001
	Moosomin	7 September, 1901
leKangia John D	Oxbow,	5 reordary, 1902 20 April 1902
IcEavden John	Wanella	6 March 1902
IcConnell, William J.	Wapella Letbbridge Grandview, Man.	6 October 1903
IcClelland, W. E.	Grandview, Man	5 March, 1904
IcLaffin, W. G	Ponoka	.8 April. 1904
IcEachern, D. V	Battleford:	20 May, 1904
lcIntyre, John	Calgary	8 October, 1904
inmons. Robert	Lethbridge	23 March 1900
eshitt John	Moose Jaw	9 Sentember 1900

## $\begin{array}{c} \textbf{Schedule} \ \ \text{of} \ \ \textbf{Certificates} \ \ \text{of} \ \ \textbf{Qualification} \ \ \textbf{under} \ \ \textbf{The} \ \ \textbf{Steam} \\ \textbf{Boilers} \ \ \textbf{Ordinance--} Continued. \end{array}$

NAME	ADDRESS	DATE OF ISSUR
NAME	ADDRESS	DATE OF ISSUR
	Second Class—Continued	
Osment, Walter J Omand, James.	Indian Head Edmonton	25 April, 1900 13 May, 1903
Parcels, Timothy P Papzant, Ernest M Pratt, George Pearce, Abrain	Red DeerEdmonton	4 September, 1899 9 October, 1899
Pearce, Abram	Wale Luke	28 May, 1900
Pajot, Jaques Pendygrasse, John S	Halcro	29 September, 1900 30 May, 1901
Pendygrasse, John S	Wolseley	-2 July, 1901 24 September, 1901
Parke, John A	Chnrebbridge	I October, 1902
Reed <sub>4</sub> R, W	Lethbridge	30 June, 1899
Richards, Henry J ( Ritchie, William J	Canmore	13 February, 1900 - 5 June. 1900
Richards, Henry J	Banff	29 September, 1900
3000. David M (	xrentell	9 May, 1901
Rice, John	Calgary	10 October, 1902 13 May: 1903
Rayner, Wm. J Roherts, W. B	Indran Head	18 November 1903
Stapley, Tobias B	Edmonton	4 September, 1899
Schatz, William H	Strathcona	9 October, 1899
Stafford, George !	Letbbridge	23 March, 1900
Steven, James II	Salgary	17 April, 1900
Sbannon, Jobn W l	Prince Albert $\dots$	28 May, 1900
Stepbenson, J. W	Moose Jaw	13 December, 1900
Shirkie, Andrew S	Arenten	24 December, 1900 7 February, 1901
Steven, Alfred E		"
Shelley, Henry J (Scott, Wallace A	larlyle	12 March, 1901
Shea. Francis W I	Prince Albert	30 May 1901
Sloan, William I	Lethbridge	30 July, 1902
ellars, Walter H ymington, John F	Arcola	15 September, 1903
nelgrove, George L	Willoworook	30 September, 1903
bannon, James	Calgary	6 November, 1903
hackleton, Thomas A I	Camloops, B.C	4 November, 1903
hungstein Cecil B I	Ceoma.	10 Dogovilov 1002
mitb, Ira	ndian Head	17 September, 1904
tarkey, Geo L	Churchhridge	15 October, 1904 21 October, 1904
myth, Barrows M	Moose Jaw	10 November, 1904
hompson, R. D Vurner, Orneldo H	Wolseley	l3 November, 1899
Turner, Orneldo H	Jalgary	3 February, 1900
oreson, Thomas V	Vetaskiwin	/ March, 1900
ompkins, Peter. Vopp, Edron Chompson, John I	vintenso take	6 May 1009
hompson, John	Port Arthur, Ont	30 August. 1902
	,,,,,,,,	A 34 - B - C - C - C - C - C - C - C - C - C
ulloch. A. J	Broadview	6 March, 1903

# Schedule of Holders of Certificates of Qualification under The Steam Boilers Ordinance—Continued.

manatura (L. J. J. J. A. Sar Secretarian representation (C. J. C. S. S. L.				
NAME	ADDRESS	DATE OF ISSUE		
	Second Class—Continued	   		
Tripp, Jas. A	Regina	14 September, 1904 16 November, 1904		
Vance, George W. VonWendel, Carl VanHaast, Julius H.  Walker, J. B Watson, Ernest P Walters, Bertrand Winter, Robert S Workman, Walter R	Prince Albert Moosomin Calgary Strathcona Lethbridge Stratbcona Grenfell Wapella Oxbow	11 April, 1901 6 November, 1903 5 November, 1904 30 June, 1899 9 October, 1899 .25 April, 1900		
Wiebe, William R. White, William J. Wright, Leslie Wiggins, James T. Wehsdale, Francis C. Watson, Hugh C. Waldock, John G. Waterfield, Thomas A. Weeks, Albert G. Wallace, William. Wood, John A.	Macleod Canmore Rosthern Moose Jaw Gainsborough Oxbow Edmonton Oxbow Medicine Hat Yorkton Regina North Portal Weyburn Bankhead	20 November, 1900 13 December, 1900 15 April, 1901 20 April, 1901 21 June, 1901 3 September, 1901 48 August, 1902 1 October, 1902 6 June, 1903 15 September, 1903 19 November, 1903		
77 (605CH), 77 - 12 - 17 - 17 - 17 - 17 - 17 - 17 -	Third Class.	1		
Andres, Gerhard J. Andreson, David Anderson, William Allan, Albert Alexander, Anthony Allison, Robert Anderson, Henry C. Alexander, Andrew W. Allan, Arthur Adams, W. J. Ashworth, J. E. Allcock, Nelson T.	Lorlie Gainsborough Carnduff Strathcona Calgary Rosthern Elmore Indian Head Edmonton Duck Lake Pasqua Regina Yorkton Edmonton Balgonie Moose Jaw Pasqua Lethbridge	26 September, 1902 14 October, 1902 19 February, 1903 13 May, 1903 13 June, 1903 22 August, 1903 16 September, 1903 30 September, 1903 18 April, 1904		
Blatchford, Peter	Indian Head Edmonton Fort Saskatchewan Prince Albert Clumber Whitewood Marlborough Katepwe Verna	24 August, 1900 5 September, 1900 13 December, 1900 24 December, 1900 5 March, 1901		

 $\begin{array}{c} \textbf{Schedule} \ \ \text{of} \ \ \textbf{Certificates} \ \ \text{of} \ \ \textbf{Qualification} \ \ \textbf{under} \ \ \textbf{The Steam} \\ \textbf{Boilers Ordinance--} Continued. \end{array}$ 

~			
NAME	ADDRESS	DATE OF ISSUE	
	Third ClassContinued		
Bushby, Joseph	Lumsden	7 September, 190	
Badley, James	Pense,	1 9 September, 1901	
Barher, Samuel R	Wolselev	124 September, 190	
Burke, Alfred H	Elmore Qu'Appelle Station	3 October, 1901	
Soyce, H. F	Qu'Appelle Station	21 November, 1901	
Rawtinheimer H E	Qu'Appelle Station	119 Dozombou 1001	
Bannerman, William	Red Deer	in Liecennoer, 1901	
Billo, Joseph	. Edmonton	64	
Bernier, Alexis	. Lamenrenx		
Bastien, Henry	Prosperity Moosomin Fairville	23 January, 1902	
Brook, James	Moosomin	3 February, 1902	
Brook, Edward	Fairville	18 August, 1902	
Brookenrides Pobert C	Whitford Rosthern	27 4 1000	
Blain John	Rosthern Indian Head	25 August, 1902	
Rossard Walter W	. Weyburn	21 November 100	
Beard, William W	Moosomin	15 March 1903	
Sarher, Richard	Wolselev	9 March, 1903	
Jurwell, Arthur P	Edmonton	.24 Amil 1903	
Berg, John	Fort Saskatchewan	13 May, 1903	
Bolduc, Joseph	Fort Saskatchewan Beaumont		
owers, Richard J	. Strathcona -		
origgs, Marshall R	Red Deer	66 D.T. 1. 1000	
Peal, Alonzo	Davidson		
Rateman William R	Moosoniin	7 August, 1903	
Sonar, Alfred	Moose Jaw		
Buell, Charles W	Lumsden Broadview	4.0	
Brown, William	Broadview	16 September, 199	
Sishop. William F	. Alameda		
Seaton, Norman	. Gordon	**	
Bricker, Menno C	Okotoks	6 November, 1903	
Orown, Kobert S	Lamoureux	15 January, 1904	
Sillo Adolpha	Calgary. Canmore.	10 reordary, 1904	
Boden, J. T.	Indian Head	15 March, 1804	
Bierwirth, J. E	Meridian	8 April 1904	
Bailey, R. B	Edmonton	18 April, 1904	
Grenton, J. R	Edmonton	* 66	
sell. Arthur	. Manor	28 Jure, 1904	
Brown, J. A	Hicksvale. Balgonie	8 July, 1904	
Plair, John	Balgonie	15 July, 1904	
Rateman Ralph	Moose Jaw		
Barber, Wm	Moose Jaw	23 Angust 1904	
Brown, W. J	Regina	14 September, 1904	
Bell, Thos	Regina Indian Head	24 September, 1904	
Salfour, David	Balcarres. Lemberg	**	
settker, Christian	Lemberg	5 October, 1904	
MIII, JOHU T	TRegina	то Остовег, 1904	
Bolduc, Peter	Beaumont Strathcona	15 October, 1904	
Royce John W	Rossetti	10 October 1004	
Bell. Martin	Rocanville	19 October, 1904	
,	in the state of th	100, CHIUCI, 1304	
urrie, Laughlin	Strathcona	9 October, 1899	
ameron, John	Edmonton	66	
lement. Lewis J	Carnduff	15 November 1899	

 $\begin{array}{c} \textbf{Schedule of Holders of Certificates of Qualification under The Steam} \\ \textbf{Boilers Ordinance} \\ \textbf{-} Continued. \end{array}$ 

Temperature of the second seco				
NAME	Address	DATE OF ISSUE		
	Third ClassContinued			
	Crescent Lake			
Cooper, Watt	Canulore	13 February. 1900		
Claracta Charles II	Strathcona Fairmede Pasqua	7 March, 1900		
Chute Clarence	Pagana	25 April, 1990 15 October 1900		
Camphell, Thomas	Prince Albert	10 November, 1900		
Clink, George J	Lacombe	31 December, 1900		
Campbell, Michael	Canmore	25 June, 1901		
Campbell, John R	Qu'Appelle Station. Prosperity. Sintaluta. Regina	18 July, 1901		
Chiand Victor	Prosperity	29 August, 1901		
Cook Thomas H	Ragina	24 September, 1901 23 November, 1901		
Urniksnank, Charles	Ked Deer	18 December, 1901		
Clauson, John	Red Deer	23 April, 1902		
Cudmore, Everard .l	Red Deer Westview Medicine Hat	7 August, 1902		
Currie, William	Medicine Hat	18 August, 1902		
Charvet, Eugene	Duck Lake	26 September, 1902		
Chase William	Wapella	10 October, 1902		
Carefoot, William J	Moosomin	10 CA CODEL, TEMA		
Cameron, Malcolm G	Dalesboro	13 May, 1903		
Cameron, Alexander	Carlyle	14 August, 1903		
Currie, Archibald	Medicine Hat	22 August, 1903		
Clarge, Leash W. W.	Fort Qu'Appelle	11 Wantonshan 1002		
Crawford Alvy	Saskatoon	30 September, 1903		
Chandler, Frederick W	Regina Saskatoon Fleming,	6 November, 1903		
Collard, John A	Moose Jaw	20 January, 1904		
Calhoun, Culver	Calgary	14 March, 1904		
Curtis, W. W	Carstairs	18 April, 1904		
Coulter, Frank	EdmontonEllerslie	"		
Clark W A	Edmonton	4.		
Christoph, Godfrey	Strassburg.	31 March, 1904		
Coleman, A. J.	Manor	28 June, 1904		
	Balgonie			
Cross, Israel.	Arcola	00 A 1004		
Callin F O	Regina	22 August, 1904 5 October 1904		
Clearwater, Bert	Whitewood,	10 October, 1904		
Charette, Clifford	Beaumont	15 October, 1904		
Cote, Joseph	Beaumont			
Clark, John	Crescent Lake	21 October, 1904		
Crichton D. O.	Calgary	28 October, 1904		
Coney Thomas	Lethbridge	24 November, 1904 15 December, 1904		
Carpenter, David	Pincher Creek	4 December, 1904		
75 3 431 4				
Dash, Albert Dixon, William	Grenfell	29 September, 1899		
Doan, John	Sintaluta	5 Sentember 1000		
Doman, Frederick	Regina Moosomin	21 February, 1901		
Dalrymple, Archy	Moose Jaw	8 August, 1901		
Dargavel, A. M	Wolseley	24 September, 1901		
Downey, Jeremiah	Summerbury	27 August, 1902		
Dyck, Francis G	Hague	26 September, 1902		
Dalgleish Andrew	Frank Moosomin	ou geptember, 1902 7 August 1902		
Donald, Alexauder.	Wolseley	22 August, 1903		
Dorrell, Henry	Wolseley Moose Jaw	,,		

## $\begin{array}{c} \textbf{Schedule} \ \ \text{of} \ \ \text{Holders of Certificates of Qualification under The Steam} \\ \text{Boilers Ordinance} \\ -\textit{Continued}. \end{array}$

	NAME .	ADDRESS	DATE OF ISSUE
Dundurn		Third Class—Continued	
Duncan, Thaddeus W	Demele, August	Qu'Appelle Station	3 September, 1903
Duncan, Thaddeus W.   Halbrite   10 October, 1903   Donnelly, J. M.   Indian Head   15 March, 1904   Doxon, F. L.   Oxbow   30 March, 1904   Doxbow   15 July, 1904   Doxbow   15 July, 1904   Doxbow   15 July, 1904   Doxbow   15 July, 1904   Doxbow   16 November, 1904   Doxbow   16 November, 1904   Doxbow   17 July, 1904   Doxbow   18 Jecumber, 1904   Doxbow   19 September, 1904   Doxbow   19 September, 1906   Doxbow   19 September, 1907   Doxbow   19 September, 1907   Doxbow   10 September, 1907   Dowber, 1908   Doxbow   10 September, 1907   Dowber, 1909   Dowber, 1900   Dowber,	ouBois, Roy C	Dundurn	5 September, 1903
Donnelly, J. M.	Oozoy, Charles	Frank	. 30 September, 1903
Dobbs F. M.   Dowalta   18 April, 1904	uncan, Thaddeus W	Halbrite	. 10 October, 1903
Dobbs F. M.   Dowalta   18 April, 1904	onnelly, J. M	Oxbow	15 March, 1904
Filley A. J.   Agricola.   Company   Color	obbs E M	Lowelta	18 April 1904
ruar, S. P. Riviere Que Barre.    Morinville	oilley. A. J	. Agricola	(4
Debuc   Ennife   Morinville   26 May, 1904     Debug   Ernest W	ruar, S. P	Riviere Que Barre	. 44
Balcarres   Benfait   16 November, 1904   Benourest, Byron   Carnduff   15 December, 1904   Carnduff   15 December, 1904   Carnduff   15 December, 1906   Carnduff   16 November, 1906   Carnduff   16 November, 1906   Carnduff   17 December, 1906   Carnduff   18 February, 1906   Carnduff   18 February, 1906   Carnduff   18 February, 1906   Carnduff   18 February, 1906   Carnduff   19 October, 1909   Carden   Carnduff   18 December, 1901   Carden   Carnduff			
Delager, Peter   Bienfait   16 November, 1904	Oash, Chas.	Hillesden	. 26 August, 1904
Delager, Peter   Bienfait   16 November, 1904	Dixon, Wm	. Balcarres	24 September, 1904
Comparison   Com	eJong, Cornelius	Balcarres	. 10 37 1 1004
Comparison   Com	Palager, Peter	Bienfait	16 November, 1904
Carbury J. R.   Wapella   29 September, 190   Crickson, John   Wetaskiwin   23 October, 1900   Crigelland, Frederick C.   Edenwold   27 Angust, 1901   Clis, John   Weldon.   15 October, 1901   Clis, John   Weldon.   15 October, 1901   Clis, John   Weldon.   15 October, 1902   Clis, John   Red Deer   18 December, 1901   Clis, John   Red Deer   18 December, 1902   Clis, John   Red Deer   18 December, 1902   Clis, John   Red Deer   13 May, 1903   Clober, Julius   Prince Albert   23 June, 1903   Clober, Lucius P   Calgary   14 Angust, 1903   Clober, Elof O   Langenburg   4 November, 1903   Clober, 1904   Clober, Alexander   Moose Jaw   Clober, Alexander   Moose Jaw   Clober,	emourest, Byron	Carndan	15 December, 1904
Carbury J. R.   Wapella   29 September, 190   Crickson, John   Wetaskiwin   23 October, 1900   Crigelland, Frederick C.   Edenwold   27 Angust, 1901   Clis, John   Weldon.   15 October, 1901   Clis, John   Weldon.   15 October, 1901   Clis, John   Weldon.   15 October, 1902   Clis, John   Red Deer   18 December, 1901   Clis, John   Red Deer   18 December, 1902   Clis, John   Red Deer   18 December, 1902   Clis, John   Red Deer   13 May, 1903   Clober, Julius   Prince Albert   23 June, 1903   Clober, Lucius P   Calgary   14 Angust, 1903   Clober, Elof O   Langenburg   4 November, 1903   Clober, 1904   Clober, Alexander   Moose Jaw   Clober, Alexander   Moose Jaw   Clober,	llonnen Emil	llydo	12 Fabruary 1900
Arickson, John         Wetaskiwin         23 October, 1900           Engelland, Frederick C.         Edenwold         27 Angust, 1901           Eliis, John         Weldon         15 October, 1901           Edgington, Guy         Red Deer         18 December, 1902           Egard, Anton F.         Oxbow         13 October, 1902           Eyre, William F.         Regina         13 May, 1903           Inberton, Julius         Prince Albert         23 June, 1903           Warts, Lucius P         Calgary         14 August, 1903           Idberg, Elof O         Langenburg         4 November, 1903           Varts, Philo         Banff         14 March, 1904           Frickson, David         Kennedy         14 September, 190           Loyel         16 November, 190           Opp, P. C         Lovell         16 November, 190           Cotheringham, James         Grenfell         29 September, 189           Cotheringham, James         Grenfell         29 September, 189           Cotheringham, James         Grenfell         25 April, 1900           Fitzgerald, Gerald         Belle Prairie         25 April, 1900           Orsyth, George         Prince Albert         28 May, 1900           Perguson, William         Moffat <td>Indury J. R.</td> <td>Wanella</td> <td>29 Sentember 1906</td>	Indury J. R.	Wanella	29 Sentember 1906
Engelland, Frederick C.         Edenwold         27 Angust, 1901           Ellis, John         Weldon.         15 October, 1901           Edgington, Guy         Red Deer         18 December, 1901           Egaard, Anton F.         Oxbow.         13 October, 1902           Eyre, William F.         Regina         13 May, 1903           Everts, William F.         Regina         13 May, 1903           Varts, Lucius P.         Calgary.         14 August, 1903           Edberg, Elof O.         Langenburg.         4 November, 1903           Edberg, Elof O.         Langenburg.         4 November, 1904           Erickson, David.         Kennedy.         14 September, 1804           Eletcher.         Alexander.         Moose Jaw.         18 December, 1900           Eletcher.         Prince Albert.         28 May, 1901 <td>rickson John</td> <td>Wetaskiwin</td> <td>'23 October, 1900</td>	rickson John	Wetaskiwin	'23 October, 1900
Red   Deer   18   December, 1901	Ingelland, Frederick C	. Edenwold	. 27 August, 1901
Red   Deer   18   December, 1901	llis, John	. Weldon	15 October, 1901
Dyre, William F.   Regina   13 May, 1903     Directon, Julius   Prince Albert   23 June, 1903     Dyarts, Lucius P   Calgary   14 August, 1903     Dyarts, Philo   Banif   14 March, 1904     Erickson, David   Kennedy   14 September, 190     Dyp, P. C.   Lovell   16 November, 190     Dyp, P. C.   Lovell   16 November, 190     Dyp, P. C.   Lovell   29 September, 180     Deteringham, James   Grenfell   29 September, 180     Deteringham, James   Grenfell   25 April, 1900     Ditzgerald, Gerald D   Belle Prairie   16	dgington, Guy	. Red Deer	. 18 December, 1901
Dyre, William F.   Regina   13 May, 1903     Directon, Julius   Prince Albert   23 June, 1903     Dyarts, Lucius P   Calgary   14 August, 1903     Dyarts, Philo   Banif   14 March, 1904     Erickson, David   Kennedy   14 September, 190     Dyp, P. C.   Lovell   16 November, 190     Dyp, P. C.   Lovell   16 November, 190     Dyp, P. C.   Lovell   29 September, 180     Deteringham, James   Grenfell   29 September, 180     Deteringham, James   Grenfell   25 April, 1900     Ditzgerald, Gerald D   Belle Prairie   16	gaard, Anton F	Oxbow	. [13 October, 1902
Aberg	lvre, William F	. Regina	. 13 May, 1903
Edberg, Elof O         Langenburg         4 November, 1906           Evarts, Philo         Bauff         14 March, 1904           Erickson, David         Kennedy         14 September, 190           Epp, P. C.         Lovell         16 November, 1906           Otheringham, James         Grenfell         29 September, 189           Pietcher, Alexander         Moose Jaw         """           Paulkner, Gilbert W         Grenfell         25 April, 1900           Fitzgerald, Gerald D         Belle Prairie         28 May, 1900           Forsyth, George         Prince Albert         28 May, 1900           Ferguson, William         Moffat         5 September, 1900           Finn, James E         Fort Qu'Appclle         23 November, 1900           Fowler, James Park         Moose Jaw         13 December, 1900           Flett, John         Flett's Springs         30 May, 1901           Fiven, Samuel         Coaltields         28 June, 1901           Fiven, Samuel         Coaltields         28 June, 1901           Fleming, Samuel         Wolseley         24 September, 190           Fleming, Samuel         Wolseley         24 September, 190           Flerguson, William         Oxbow         28 April, 1902           Fergus, J	Imberton, Julius	Prince Albert	. 23 June, 1903
Dearts   Philo   Banff   14 March   1904     Crickson   David   Kennedy   14 September   1905     Copp. P. C.   Lovell   16 November   1905     Cotheringham   James   Grenfell   29 September   1806     Cotheringham   James   Grenfell   29 September   1806     Cotheringham   James   Grenfell   25 April   1900     Cotheringham   James   Grenfell   25 April   1900     Cotheringham   James   Jaw   30 May   1900     Cotheringham   Mose Jaw   30 May   1900     Cotheringham   Moffat   5 September   1906     Cotheringham   Fort Qu'Appelle   23 November   1906     Cother   James Baw   13 December   1906     Cother   James Park   Moose Jaw   30 May   1901     Cristad   George   Gainsborough   27 August   1901     Cristad   George   Gainsborough   27 August   1901     Cristad   George   Gainsborough   27 August   1901     Clack   Samuel   Wolseley   24 September   1906     Clack   Samuel   Red Deer   18 December   1906     Cother   Samuel   Red Deer   18 August   1902     Corguson   William H   Oxbow   28 April   1902     Corge   James   Moose Jaw   30 September   1906     Corge   James   Moose Jaw   30 September   1906     Cother   1902   Craser   William   Strathcona   13 May   1903     Coster   William   Strathcona   13 May   1903     Coster   John T   Moose Jaw   1 September   1906     Coulkard   Albert F   Pense   14 September   1907     Coulkard   Albert F   Pense   14 September   1907     Collegeler   William   Langenburg   6 October   1903     Cother   1903   1906     Cother   1906     Cother   1907   1908     Cother   1908   1908     Cother   1908     Cother   1908     Cother   1908     Cother   1908     Coth	lvarts, Lucius P	Calgary	14 August, 1903
Cotheringham, James   Grenfell   29 September, 189	Edberg, Elof U	Langenburg	. 4 November, 1903
Cotheringham, James   Grenfell   29 September, 189	Evidron David	Kannady	14 March, 1904
Totheringham, James Grenfell 29 September, 189 Teletcher, Alexander Moose Jaw Taulkner, Gilbert W Grenfell 25 April, 1900 Titzgerald, Gerald D Belle Prairie Torsyth, George Prince Albert 28 May, 1900 Terguson, William Moffat 5 September, 1900 Tinn, James E Fort Qu'Appelle 23 November, 1900 Towler, James Park Moose Jaw 13 December, 1900 Telett, John Flett's Springs 30 May, 1901 Telesen, Isaac P Rostbern 7 Teryn, Samuel Coaltields 28 June, 1901 Tristad, George Gainsborough 27 August, 1901 Teleming, Samuel Wolseley 24 September, 1900 Telack, Samuel Red Deer 18 December, 1900 Telack, Samuel Red Deer 18 December, 1900 Telack, Samuel Red Deer 18 August, 1902 Tereguson, William H Oxbow 28 April, 1902 Tered, Joseph H North Portal 30 August, 1902 Tered, Joseph H North Portal 30 August, 1902 Tergus, David M Yorkton 1 October, 1902 Teraser, William Strathcona 13 May, 1903 Toster, William W Red Deer Talkingham, Joseph Hanley 14 August, 1903 Toster, John T Moose Jaw 1 September, 1906 Telack, Albert F Pense 14 September, 1907 Teleseler, William Langenburg 6 October, 1903	Enn P C	Lovell	16 November 1904
Comparison   Com	2pp, 1 · C/ · · · · · · · · · · · · · · · · ·	novem	T T T T T T T T T T T T T T T T T T T
Comparison   Com	otheringham, James	Grenfell	. 29 September, 1899
Citzgerald, Gerald D         Belle Prairie         """           Forsyth, George         Prince Albert         28 May, 1900           Ferguson, William         Moffat         5 September, 190           Finn, James E         Fort Qu'Appelle         23 November, 190           Fowler, James Park         Moose Jaw         13 December, 190           Flett, John         Flett's Springs         30 May, 1901           Friesen, Isaac P         Rostbern         ""           Fryn, Samuel         Coaltields         28 June, 1901           Fristad, George         Gainsborough         27 August, 1901           Fleming, Samuel         Wolseley         24 September, 190           Flack, Samuel         Red Deer         18 December, 190           Flack, Samuel         Red Deer         18 December, 190           Ferguson, William H         Oxbow         28 April, 1902           Ferguson, William H         Oxbow         28 April, 1902           Fered, Joseph H         North Portal         30 August, 1902           Fergus, David M         Yorkton         1 October, 1902           Fraser, William         Strathcona         13 May, 1903           Foster, William W         Red Deer         ""           Falkingham, Joseph         <	letcher, Alexander	Moose Jaw	
Corsyth, George         Prince Albert.         28 May, 1900           Perguson, William         Moffat         5 September, 1900           Pinn, James E.         Fort Qu'Appelle         23 November, 1900           Powler, James Park         Moose Jaw.         13 December, 1900           Piett, John         Flett's Springs         30 May, 1901           Prissen, Isaac P.         Rostbern         """           Pryn, Samuel         Coaltields         28 Jnne, 1901           Pristad, George         Gainsborougb         27 August, 1901           Pleming, Samuel         Wolseley         24 September, 1901           Plack, Samuel         Red Deer         18 December, 1902           Plack, Samuel         Red Deer         18 December, 1902           Perguson, William H.         Oxbow         28 April, 1902           Preed, Joseph H.         North Portal         30 Angust, 1902           Pergus, James         Moose Jaw         30 September, 1902           Persus, David M.         Yorkton         1 October, 1902           Praser, William         Strathcona         13 May, 1903           Poster, William W.         Red Deer         14 August, 1908           Poster, John T.         Moose Jaw         1 September, 190 <td< td=""><td>'aulkner, Gilbert W</td><td>'Grenfell</td><td>. 25 April, 1900</td></td<>	'aulkner, Gilbert W	'Grenfell	. 25 April, 1900
Ferguson, William         Moffat         5 September, 190           Finn, James E.         Fort Qu'Appelle         23 November, 190           Fowler, James Park         Moose Jaw.         13 December, 190           Flett, John         Flett's Springs         30 May, 1901           Friesen, Isaac P.         Rostbern         "           Fryn, Samuel         Coaltields         28 Jnne, 1901           Fristad, George         Gainsborough         27 August, 1901           Fleming, Samuel         Wolseley         24 September, 190           Flack, Samuel         Red Deer         18 December, 190           Flack, Samuel         Red Deer         8 April, 1902           Ferguson, William H.         Oxbow         28 April, 1902           Fergus, Trancis W.         Medicine Hat         18 August, 1902           Fergus, James         Moose Jaw         30 Angust, 1902           Forge, James         Moose Jaw         30 September, 190           Forgus, David M.         Yorkton         1 October, 1902           Fergus, David M.         Yorkton         1 October, 1902           Forster, William         Strathcona         13 May, 1903           Foster, William W.         Red Deer         "           Falkingham, Joseph	Sitzgerald, Gerald D	. Belle Prairie	
Finn, James E.         Fort Qu'Appelle         23 November, 1906           Powler, James Park         Moose Jaw.         13 December, 1906           Piett, John         Flett's Springs         30 May, 1901           Priesen, Isaac P.         Rostbern         1           Pryn, Samuel         Coaltields         28 June, 1901           Pristad, George         Gainsborougb         27 August, 1901           Pleming, Samuel         Wolselev         24 September, 190           Plack, Samuel         Red Deer         18 December, 190           Plack, Samuel         Red Deer         28 April, 1902           Pair, Francis W         Medicine Hat         18 August, 1902           Pair, Francis W         Medicine Hat         18 August, 1902           Porge, James         Moose Jaw         30 August, 1902           Porge, James         Moose Jaw         30 September, 190           Pergus, David M         Yorkton         1 October, 1902           Praser, William         Strathcona         13 May, 1903           Poster, William W         Red Deer         14 August, 1903           Poster, John T         Moose Jaw         1 September, 190           Poulkard, Albert F         Pense         14 September, 190           Pieseler, Will	orsyth, George	Prince Albert	28 May, 1900
Fresen, Isaac P.         Rostbern           Fryn, Samuel         Coaltields         28 June, 1901           Fristad, George.         Gainsborough         27 August, 1901           Fleming, Samuel         Wolseley         24 September, 190           Flack, Samuel         Red Deer         18 December, 190           Findlay, James F.         Leduc.         "           Ferguson, William H.         Oxbow         28 April, 1902           Fair, Francis W.         Medicine Hat         18 August, 1902           Freed, Joseph H.         North Portal         30 August, 1902           Forge, James         Moose Jaw         30 September, 190           Fraser, William         Strathcona         13 May, 1903           Foster, William W.         Red Deer         "           Falkingham, Joseph         Hanley         14 August, 1903           Foster, John T.         Moose Jaw         1 September, 190           Foulkard, Albert F.         Pense         14 September, 190           Fieseler, William         Langenburg         6 October, 1903	erguson, William	Moffat	. 5 September, 1996
Fresen, Isaac P.         Rostbern           Fryn, Samuel         Coaltields         28 June, 1901           Fristad, George.         Gainsborough         27 August, 1901           Fleming, Samuel         Wolseley         24 September, 190           Flack, Samuel         Red Deer         18 December, 190           Findlay, James F.         Leduc.         "           Ferguson, William H.         Oxbow         28 April, 1902           Fair, Francis W.         Medicine Hat         18 August, 1902           Freed, Joseph H.         North Portal         30 August, 1902           Forge, James         Moose Jaw         30 September, 190           Fraser, William         Strathcona         13 May, 1903           Foster, William W.         Red Deer         "           Falkingham, Joseph         Hanley         14 August, 1903           Foster, John T.         Moose Jaw         1 September, 190           Foulkard, Albert F.         Pense         14 September, 190           Fieseler, William         Langenburg         6 October, 1903	Inn, James E	Moose Law	.  23 November, 1900
Fresen, Isaac P.         Rostbern           Fryn, Samuel         Coaltields         28 June, 1901           Fristad, George.         Gainsborough         27 August, 1901           Fleming, Samuel         Wolseley         24 September, 190           Flack, Samuel         Red Deer         18 December, 190           Findlay, James F.         Leduc.         "           Ferguson, William H.         Oxbow         28 April, 1902           Fair, Francis W.         Medicine Hat         18 August, 1902           Freed, Joseph H.         North Portal         30 August, 1902           Forge, James         Moose Jaw         30 September, 190           Fraser, William         Strathcona         13 May, 1903           Foster, William W.         Red Deer         "           Falkingham, Joseph         Hanley         14 August, 1903           Foster, John T.         Moose Jaw         1 September, 190           Foulkard, Albert F.         Pense         14 September, 190           Fieseler, William         Langenburg         6 October, 1903	Plott Toba	Flott's Springs	20 May 1001
Pryn, Samuel         Coaltields         28 June, 1901           Pristad, George         Gainsborough         27 August, 1901           Heming, Samuel         Wolseley         24 September, 190           Plack, Samuel         Red Deer         18 December, 190           Pindlay, James F         Leduc         "           Perguson, William H         Oxbow         28 April, 1902           Preed, Joseph H         North Portal         30 August, 1902           Porge, James         Moose Jaw         30 September, 190           Pergus, David M         Yorkton         1 October, 1902           Praser, William         Strathcona         13 May, 1903           Poster, William W         Red Deer         "           Palkingham, Joseph         Hanley         14 August, 1903           Poster, John T         Moose Jaw         1 September, 190           Poulkard, Albert F         Pense         14 September, 190           Pieseler, William         Langenburg         6 October, 1903	riesen Isaac P	Rosthern	44
Pristad, George.         Gainsborougb         27 August, 1901           Pleming, Samuel         Wolseley         24 September, 190           Plack, Samuel         Red Deer         18 December, 190           Pindlay, James F         Leduc         "           Perguson, William H         Oxbow         28 April, 1902           Pair, Francis W         Medicine Hat         18 August, 1902           Pergus, Joseph H         North Portal         30 August, 1902           Porge, James         Moose Jaw         30 September, 190           Pergus, David M         Yorkton         1 October, 1902           Praser, William         Strathcona         13 May, 1903           Poster, William W         Red Deer         "           Palkingham, Joseph         Hanley         14 August, 1903           Poster, John T         Moose Jaw         1 September, 190           Poulkard, Albert F         Pense         14 September, 190           Pieseler, William         Langenburg         6 October, 1903	rvn. Samuel	. Coalfields	28 June, 1901
Cleming, Samuel         Wolseley         24 September, 190           Flack, Samuel         Red Deer         18 December, 190           Findlay, James F         Leduc         "           Ferguson, William H         Oxbow         28 April, 1902           Fair, Francis W         Medicine Hat         18 August, 1902           Freed, Joseph H         North Portal         30 August, 1902           Forgus, James         Moose Jaw         30 September, 190           Fergus, David M         Yorkton         1 October, 1902           Fraser, William         Strathcona         13 May, 1903           Foster, William W         Red Deer         "           Falkingham, Joseph         Hanley         14 August, 1903           Foster, John T         Moose Jaw         1 September, 190           Foulkard, Albert F         Pense         14 September, 190           Fieseler, William         Langenburg         6 October, 1903	Pristad George	(tainsborough	27 August, 1901
Cindlay, James F.         Leduc.           Ferguson, William H.         Oxbow         28 April, 1902           Pair, Francis W.         Medicine Hat         18 August, 1902           Preed, Joseph H.         North Portal         30 Angust, 1902           Porge, James         Moose Jaw         30 September, 190           Pergus, David M.         Yorkton         1 October, 1902           Praser, William         Strathcona         13 May, 1903           Poster, William W.         Red Deer         "           Falkingham, Joseph         Hanley         14 August, 1903           Poster, John T.         Moose Jaw         1 September, 190           Poulkard, Albert F         Pense         14 September, 190           Pieseler, William         Langenburg         6 October, 1903	leming, Samuel	Wolselev	24 September, 190
Cindlay, James F.         Leduc.           Ferguson, William H.         Oxbow         28 April, 1902           Pair, Francis W.         Medicine Hat         18 August, 1902           Preed, Joseph H.         North Portal         30 Angust, 1902           Porge, James         Moose Jaw         30 September, 190           Pergus, David M.         Yorkton         1 October, 1902           Praser, William         Strathcona         13 May, 1903           Poster, William W.         Red Deer         "           Falkingham, Joseph         Hanley         14 August, 1903           Poster, John T.         Moose Jaw         1 September, 190           Poulkard, Albert F         Pense         14 September, 190           Pieseler, William         Langenburg         6 October, 1903	lack, Samuel	Red Deer	18 December, 1901
Terguson, William H.       Oxbow       28 April, 1902         Fair, Francis W.       Medicine Hat       18 August, 1902         Preed, Joseph H.       North Portal       30 August, 1902         Forge, James       Moose Jaw       30 September, 190         Pergus, David M.       Yorkton       1 October, 1902         Praser, William       Strathcona       13 May, 1903         Poster, William W.       Red Deer       "         Falkingham, Joseph       Hanley       14 August, 1903         Poster, John T.       Moose Jaw       1 September, 190         Foulkard, Albert F       Pense       14 September, 190         Pieseler, William       Langenburg       6 October, 1903	'indlay, James F	¦Leduc,	:
Preed, Joseph H.         North Portal         30 Angust, 1902           Porge, James         Moose Jaw         30 September, 1902           Pergus, David M.         Yorkton         1 October, 1902           Praser, William         Strathcona         13 May, 1903           Poster, William W.         Red Deer         ""           Palkingham, Joseph         Hanley         14 August, 1903           Poster, John T.         Moose Jaw.         1 September, 190           Poulkard, Albert F.         Pense.         14 September, 190           Pieseler, William         Langenburg         6 October, 1903	erguson, William H	. Oxbow	28 April, 1902
Forge, James         Moose Jaw         30 September, 190           Fergus, David M         Yorkton         1 October, 1902           Fraser, William         Strathcona         13 May, 1903           Foster, William W         Red Deer         "           Falkingham, Josepb         Hanley         14 August, 1903           Foster, John T         Moose Jaw         1 September, 190           Foulkard, Albert F         Pense         14 September, 190           Fieseler, William         Langenburg         6 October, 1903	fair, Francis W	Medicine Hat	. 18 August, 1902
Fergus, David M.         Yorkton         1 October, 1902           Graser, William         Strathcona         13 May, 1903           Foster, William W.         Red Deer         "           Folkingham, Joseph         Hanley         14 August, 1903           Foster, John T.         Moose Jaw.         1 September, 190           Foulkard, Albert F.         Pense.         14 September, 190           Fieseler, William         Langenburg         6 October, 1903	Creed, Joseph H	North Portal	30 Angust, 1902
Graser, WilliamStrathcona13 May, 1903Poster, William W.Red Deer"Palkingham, JosephHanley14 August, 1903Foster, John T.Moose Jaw1 September, 190Poulkard, Albert FPense14 September, 190Pieseler, WilliamLangenburg6 October, 1903	orge, James	Vorkton	ou September, 190
Foster, William W.         Red Deer         "           Falkingham, Joseph         Hanley         14 August, 1903           Foster, John T.         Moose Jaw.         1 September, 190           Foulkard, Albert F.         Pense.         14 September, 190           Fieseler, William         Langenburg         6 October, 1903	rergus, David M Tracar William	Stratheona	13 May 1002
Falkingham, Joseph.       Hanley       14 August, 1903         Foster, John T.       Moose Jaw.       1 September, 196         Foulkard, Albert F.       Pense.       14 September, 196         Fieseler, William       Langenburg       6 October, 1903	Taser, William W	Rod Door	10 1147, 1900
Foster, John T Moose Jaw I September, 190 Foulkard, Albert F Pense	Calkingham, Joseph	Hanley	. 14 August. 1903
Foulkard, Albert F	Foster, John T	Moose Jaw.	1 September, 190
Fieseler, William Langenburg 6 October, 1903	oulkard, Albert F	Pense	14 September, 190
Friesen, Jacob Rosthern	Fieseler, William	Langenburg	. + 6 October, 1903
Fraser, Charles Okotoks 6 November, 190	Friesen, Jacob	. Rosthern	. 16 October, 1903

# $\begin{array}{c} \text{Schedule of Holders of Certificates of Qualification under The Steam} \\ \text{Boilers Ordinance--} Continued. \end{array}$

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NAME	ADDRESS	DATE OF ISSUE
	Third Class—Continued.	
Fletcher, George C	Pense	27 November, 1903
Fotheringbam, David	Grenfell	15 March, 1904
Fallis, J. J	Lumsden	131 March, 1904
Flock A G	Fort Saskatchewan	14 September, 1904
Fisher, Carl	Indian HeadDrinkwater	15 September, 1904
Getty, Samuel	Moose Jaw	29 September, 1899
Gagnon, Alfred	$\Box$ St. Albert	28 May, 1900
Grav. William	Clumber	<sup>1</sup> 24 August, 1900
Godson, Charles	Fairville	29 September, 1900
Grue, Theodore S	Bittern Lake	17 December, 1900
Gravy John	Qu'Appelle Station	129 August. 1901
Gardiner, C. T	Balgonie	30 September, 1901
Gedge, William J	Moosomin	14 February, 1902
Gaetz, James F	Red Deer	23 April, 1902
Gadder, James	Grenfell	25 August, 1902
Giesbrecht, Jacob	WaldheimRosthern	26 September, 1902
Great William In	Clumber	30 Sentember, 1902
Gillis, Murdoch	Whitewood	10 October, 1902
Gobel. Valentine	Hyde	24 October, 1902
Gougeon, Xavin	Saskatoon	29 October, 1902
Guess, Herbert	Saltoun	19 February, 1903
Grad, Adam	Balgonie	14 August, 1903
Gordon Sandy	Moose Jaw	122 August, 1905 129 Santember 1903
Gunmow John P	Estevan.	10 October, 1903
George, John	Kamloops, B.C	113 January, 1904
Griffiths, W. H	'Anthracite	14 March, 1904
Giddings, Thos	Calgary	••
Graham, D. M	Indian Head	15 March, 1904
Gosbal H C	Leduc	118 April, 1904
Galpin, Chas. W	Edmonton	7 July, 1904
	Wolseley	
Hewer, Jessey J.	Strathcona	9 October, 1899
Halflin, Mark	Wolseley	□25 April, 1900
Harrold, David	Edmonton	28 May, 1900
Hawkes, A. G	Broadview	5 September, 1900
Henner, Frank	Bruederheim	10 November, 1900
Holden I A	Strathcona	31 December, 1900
Hastings, James	Indian Head	24 January, 1901
Hargest, Richard	Edgeley	18 July, 1901
Holden, Samuel O	Indian Head	26 August, 1901
Hubbs, Annet	Sintaluta	124 September, 1901
Hoher John W	Prince AlbertPonoka.	10 October, 1901
Hill. Edmund.	· Oxbow	28 April, 1902
Houghton, Charles N.	Carnduff	+ 6 May, 1902
Hill, Alfred	. Oxbow	
Halliday, Ninian	Gainsborough	1
Hill, Albert C. M	Grenfell	25 Angust, 1902
Harrie Edward C	Carnoustie	110 October, 1902
Hudson, Arthur C.	Star	6 January, 1903
Hubbs, Charles	Edmonton Sintaluta	19 February, 1903
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 $\begin{array}{c} \textbf{Schedule of Holders of Certificates of Qualification under The Steam} \\ \textbf{Boilers Ordinance--} Continued. \end{array}$ 

NAME	ADDRESS	DATE OF ISSUE
	Third Class—Continued.	
	Sintaluta	
Havegaard, Rasmus T	Whitewood	6 March, 1903
densdoerfer, Joseph	Edmonton	13 May, 1903
Heatley, William	Beaumont	aa A
Tamon William	Indian Head	22 August, 1905
Henderson, George A.	Halbrite	97 Aponst 1903
Harold Christopher	Caron	14 Sentember 190
Hodgson, Robert C	Battleford	
Hodge, John	Battleford Carievale	16 September, 190
Huck, Anton, Jr.	. $[{f Q}{f u}]$ Appelle Station $\dots$	17 October, 1903
Harrison, Frank H. O	Pense	-24 November, 1905
daney, Sylvester	Lacombe	28 January, 1904
ayter, benjamin	OxbowArcola	13 February, 1904
Hilts I A	Moosomin	ou march, 1904
Hine. A. J.	Glen Ewen.	8 April 1904
Hougestol, Anton	Glen EwenWetaskiwin	18 April, 1904
Harrold, John	Edmonton Battleford Maryfield Cannington Manor	**
Hamilton, Geo	Battleford	1 June, 1904
Honey, James, Jr	Maryfield	28 June, 1904
Hutchison, John R	Cannington Manor	** * * * * * * * * * * * * * * * * *
douston, R. W	. Prince Albeit	'15 July, 1904
darison, Jackson	St. Mary's	19 July, 1904
Hout Form M	Moosomin	7 Octobor 1904
Horshurgh Andrew C	Rouleau	10 October, 1904
Hutchings, H. E.	Edmonton	15 October, 1904
Hunter, Herman	Moosomin	19 October, 1904
Hardaker, John W	. Fairlight	.,
Hewgill, F. M	Moosomin	• •
ngram, Isaac	Strathcona	9 October, 1899
meson, George	Stony Plain	18 December, 1901
reton, Henry W	. Moosomin	19 Fehruary, 1903
Johnstone Thomas	. Qu'Appelle Station	20 Santambar 100
lames William H	Whitewood	15 November 1890
ackson. Charles	Whitewood. Calgary.	19 July, 1900
Tames, Charles W	Whitewood	11 April, 1901
Jones, Robert	Moose Jaw	8 August, 1901
Johnstone, Edward	Chicknev	26 August, 1901
oyner, Charles A	Bentley	2 October, 1901
James, Dunnam D	Didsbury	1 November, 1902
fevne, Ivan	Wetaskiwin	13 February, 1903
fonce Frank	Summerberry	24 April, 1903
Johnson Conrid	Red Deer	22 August, 1905
ones. Daniel E	Alameda	16 September 190
farrat, Edward	Strathcona	18 April, 1904
Tunker, Maxmillian	Balgonie	19 July, 1904
leavous, Harry J	.[Whitewood	28 September, 190-
Jameson, Chas. W	Ponoka	15 October, 1904
7-11 - (3 13	1887 1 1	W. G
Krienke, C. F	Wolseley	29 September, 189
King, John	Regina	17 October, 1899 25 April, 1900
(manka Alhant	TERRESOURCE CONTRACTOR OF THE	140 A.DEH. 1990
Krienke, Albert	Moosomin	20 Syntamber 100
Cerr, William G Crause, Otto	Moosomin Innisfail Moosomin	29 September, 1901

# Schedule of Holders of Certificates of Qualification under The Steam Boilers Ordinanee—Continued.

		regularious tritate
NAME	Address	DATE OF ISSUE
	Third Class—Continued	
Klippinstein Abraham	Rosthern	23 June. 1902
Klassen, John S	Hague	26 September, 1902
Klaassen, Jacob C	Hague Rosthern	1 October, 1902
Kruppa, Jos	Kaposvar	10 October, 1902
Klein, Oscar A	KaposvarPrince Albert	"
Kennedy, Daniel	'Sintaluta,	(22 August, 1903
Kay, Edwin W	Fairville	14 September, 1903
Koch, Carl	Balgonie	• •
Kemp, Thomas D	Lacombe	10.4. 11.1004
Kannglesser, Simon	Lacombe	[18 April, 1904
Kelsey, A. F	Clover Bar	
Kail Walton I	Wetaskiwin	15 Inly 1001
Kannedy Alex	Lumsden	24 September 1901
Krinke Otto	Lembero	5 October, 1904
Kirknatrick W A	Regina	15 October 1904
Knapp. Henry H.	Lemberg	16
Kawin, Johann	Langenburg	21 October, 1904
	1	,
Lang, James	Okotoks	19 July, 1900
Lamoureux, Alcibiade	Lamourenx	15 November, 1900
Lewis, William H	Innisfail	18 December, 1901
Lee, George	Edmonton	
Loval, Lawrence	Onion Lake	12 April, 1902
Louiselle, Jerry	Red Deer	23 April, 1902
Lundy, William T	Innisfail	20 Inla 1000
Leniczek, Adam	Neudorf	19 A name t 1000
Lynch, Alexander W	Blairmore Rosthern	26 September 1902
Livingstone John N	Indian Head	19 February 1903
Lycour Knut K	Bittern Lake	7 Apoust 1903
Linnell, Albert W.	Bittern Lake	22 August, 1903
Lindberg, Erick	Calmar	18 April, 1904
Langhauson Iacoh	Fort Saskatchowan	1 **
Langhausen, Peter	Wetaskiwin	••
Lee, Andrew E	Wetaskiwin	
Lvail, Peter	North Portal	11 May, 1904
Lee, Wm. D	Yorkton	2 Angust, 1904
Lehman, Harrison	Edmonton	15 October, 1904
Moukin John	Dunbow	1 December 1900
Martin Magloire 7	Morinville.	28 May. 1900
Mervill Henry R	Morinville Carnduff Moosomin	19 June. 1900
Murray, James A	Moosomin	29 September, 1900
Merchant fonn	Lamsaen	30 November, 1900
Mitchell, Timothy W	Red Deer	7 February, 1901
Montgomery, James D	Red Deer Fleming. Prince Albert.	11 April, 1901
Melton, John W	Prince Albert	30 May, 1901
Mather, E. M	Caigary	6 June, 1901
Martin, F. H	Moose Jaw	8 August, 1901
Macdonald, W. P. C	Poplar Grove	29 August, 1901
Millham, Oliver U	Hazelcliffe.	9 Oarobon 1001
Mackenzie, John D	Dalesboro	2 October, 1901
Mordon Inach D	Ebenezer	18 December, 1901
Moore John R	Innisfail	" " " " " " " " " " " " " " " " " " "
Munice Wilfred	Morinville	• • •
Miller Phillip	Stony Plain	4.6
Meneely William	Edmonton	"
Mikesthus, Michael	Leduc	11
manufacture, and received the second		

# Schedule of Holders of Certificates of Qualification under The Steam Boilers Ordinance—Continued.

NAME	ADDRESS	DATE OF ISSUE
11.22.19.22	ADDIESS	DATE OF RISCH
	Third Class—Continued	1
Markahara D	Innisfail	92 April 1002
Moore David	Gainsborough	6 May 1902
Myllymaki, Jacoh	New Finland	18 August, 1902
Maybew, William H	Broadview	25 August, 1902
Martens, Peter	Hague	26 September, 1902
Meilicke, Karle	Dundurn	30 Septemher, 1902
Miller, William J	Kirkpatrick	1 October, 1902
Marten, William A	Broadview	4 October, 1902
Morumer, Samuel	Strathcona	18 December, 1902
Moore Homer S	Dongola	is renruary, 1905
Mitchell David	Oxbow	13 May, 1903
MacCauley, James A	Rabbit Hill	10 June, 1903
Morrison, James A	Abernethy,	-22 August, 1903
Martin, Henry E	Regina,	31 August, 1903
Munroe, John A	RouleauRegina	3 September, 1903
Morris, George E	Regina	17 September, 1903
Mellicke, Emil	Dundurn	24 September, 1903
Menicke, Otto F	DundurnWhitewood	20 Cantombox 1002
Mitchell Edward	Pasqua	'94 November, 1902
Mooney W S	Lacomhe	18 April 1904
Mayer, Ferdinand	Edmonton	16
Murray, A. A	St. Albert	1 66
Meunier, J. H.	Morinville	
Meredith, Wilbert	Edmonton	"
Mooney, G. K	Regina	15 July, 1904
Matheson, Wm. A	Moose Jaw	
Munison Wm	ReginaCarlyle	• • •
Moilicko O F	Dundurn	14 September 1904
Melton Earl	Prince Albert	" septemoer, 13.11
Mathews, Geo	Strathcona	15 October, 1904
Morgan, Oscar		"
Maifield, W. H	Namao	"
Malpas, David	Churchhridge	21 October, 1904
Maserek, J. J	Crescent Lake	20 O-4-1 1004
Moerike, P. A	Milestone	28 October, 1904
Meau, Francis A	I incher Creek	50 December, 1904
McKernan, James	Edmonton	9 October, 1899
	Yorkton	
McDonnell, Finley	The Sturgeon	23 October, 1900
McLellan, John	TT 4 C 1 4 1	15 November, 1900
McLeod, Millage J	Fort Saskatchewan	
McKellar, John	Red Jacket	20 4 1001
McFaqyen, Nell	Stony Plain	129 August, 1901
McFadvan John	Wapella	92 Ianuary 1902
McLean, Archibald	Lethbridge	18 Angust. 1902
McDerniaid, Malcolm	Indian Head.	10 11 45 450, 1002
McLellan, John		
McPhce, John	Lunisden	18 September, 1902
McDonald, Peter	Wapella	6 March, 1903
McKinnon, Donald	Earlswood	6 M 1 2000
McLean, Alexander M	Calgary	9 March, 1903
McLaren, John P	Percy	50 March, 1903
McGarry Fred	Lacombe	24 April, 1905
	Penhold.	

 $\begin{array}{c} \text{Schedule of Holders of Certificates of Qualification under The Steam} \\ \text{Boilers Ordinance--} Continued. \end{array}$ 

NAME	ADDRESS	DATE OF ISSUE
	Third Class—Continued	
McKen, John, Jr	Red Deer Yorkton. Indian Head Alameda Arcola Moose Jaw Calgary	6 June, 1903 22 August, 1903 5 September, 1903 16 September, 1903 17 October, 1903 6 November, 1903
McCorkindale, Harvey McGregor, Samuel McConnell, J. A McCauley, Alex McLean, J. A McDiarmid, A. D McKim. Nelson W	Indian Head Oxbow Carnduff Edmonton Star. Edmonton.	15 March, 1904 30 March, 1904 8 April, 1904 18 April, 1904 "
McArthur, Hector	Oxbow. Strathcona. Battleford. Belle Paline. Mountain Mill. Saskatoon.	18 May, 1904 3 June, 1904 30 June, 1904 15 July, 1904 14 September, 1904
McNabb, Alex. McCall, Jas. F. McGillivray, Daniel McCarthy, J. R McLeod, D. J. W	Grah Hills. Coleman Pense Saskatoon. Strathcona. Red Jacket	24 September, 1904 10 October, 1904 13 October, 1904 15 October, 1904
Nixon, T. H	Wetaskiwin. Wapella Waldheim Wapella. Innisfail St. Albert. Ohlin. Hague.	29 September, 1900 20 November, 1900 24 December, 1900 18 December, 1901 
Neufeld, D. P. Nenfeld, J. M Nichols, James J Niven, John. Neufeld, Abram J	Rosthern  Edmonton Lethbridge Rosthern Wapella	". 13 May, 1903 6 October, 1903
Olson, Edwin L Ovington, John Oliver, Ernest H.	Calgary	4 October, 1902 10 October, 1902 6 November, 1903
Peirce, George J	Welwyn Maple Creek Edmonton	8 March, 1900 30 May, 1900 29 September, 1900 23 October, 1900 20 November, 1900 24 December, 1900

## $\begin{array}{c} \textbf{Schedule} \ \ \text{of} \ \ \textbf{Certificates} \ \ \text{of} \ \ \textbf{Qualification} \ \ \textbf{under} \ \ \textbf{The Steam} \\ \textbf{Boilers Ordinance--} Continued. \end{array}$

NAME	ADDRESS	DATE OF ISSUE
	Third Class—Continued	
Perry, M. Truman	Alameda	15 October, 1901
Putnam, Albert E	Edmonton	18 December, 1901
Powell, James A	44	09.4 11.1000
Pugh John	Calgary .	23 April, 1902
Pimm, John.	Lethbridge	18 August, 1902
Peters, Frank A	Hague Yorkton	26 September, 1902
Peterson, William	Yorkton	1 October, 1902
Pachal, Rudolph	Ebenezer	30 March, 1903
Pullshiv William	Star	.23 June 1903
Peterson, Alfred T	Carnduff	5 September, 1903
Penner, Abraham	Carnduff	16 October, 1903
Porteous, W. M	Loon Creek	14 March, 1904
Piper F E	Calgary	18 April 1904
Parke Norman G.	Red Deer Churchbridge	30 September, 1904
Plett, Isaac B	Lemberg	5 October, 1904
Parker, R. J	New Hastings	·19 October, 1904
Peck, A. J	Crescent Lake	21 October, 1904
Rainsay, David	Winnipeg	1 August, 1899
Robinson, John	Regina	9 October, 1899
Ritchie, Charles	Cut Arm	15 November, 1899
Ritchie, James	Saltcoats	24 August, 1900
Rutherford, John	Medicine Hat	29 September, 1900
Dattmart Amabia D	Edmonton	15 December 1000
Roberts, William B	Beaver Hills	7 February, 1901
Reynolds, James J	Beaver Hills Gainsborough Qu'Appelle Station Moose Jaw Benbecula	7 May, 1901
Rodgers, William L	Qu'Appelle Station	18 July, 1901
Rorison, Hugh H	Moose Jaw	8 August, 1901
Reeve, Lewis H	Moosomin	18 April, 1902
Ross, William, A	Moosomin Milestone Wolseley. Rosthern	7 August, 1902
Rees, Illted	Wolseley.	25 August, 1902
Regier, Henry W	Roy Aggord	26 September, 1902
Ryan, James	Bon Accord	22 October, 1902
Reynolds, John	. Yellow Grass	. 18 November, 1902
Rose, Wallace	. Prince Albert	- 6 June, 1903
Richards, Henry	Balcarres	. 22 August, 1903
Reddemann Herman	. Estevan	. 10 October, 1993
Rogers, F. A	. Glen Ewen	. 30 March, 1904
Redeg, Valentine	. Lacombe	. 18 April, 1904
Rivet. Arthur	. Morinville	.  26 May, 1904
Rahray, Thos. A., Jr	. Edmonton	7 July, 1904
Rogers, Geo	. Yorkton	23 July, 1904
Ramsay, Jas	Coleman	7 October, 1904
Read, Nicholas R	. Fairville	10 October, 1904
Rooke, J. M	Dalrymple	20 October, 1904
Smith, Gavin G	. Battleford	11 July, 1899
Stadalhauer Simon	Spruce Grove	18 September 1899
Smith, N. T	. Moose Jaw	. 29 September, 1899
Stewart Thomas H	Strathcona	9 October 1899
Enchair, Thomas 11	·,~~exauncona	. 5 0000001, 1000

# Schedule of Holders of Certificates of Qualification under The Steam Boilers Ordinance—Continued.

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NA ME	ADDRESS	DATE OF ISSUE
	Third Class—Continued	
Sanders, S. B	Grenfell Athabasca Landing	l November, 1899
Smith, William F	Athabasca Landing	28 November, 1899
Stine Frank		12 February 1000
Stein, Andrew	Tiree	is reordary, 1500
Saunders, Elias T	Lethbridge	193 March 1900
Steele, William L	Oxbow Okotoks	19 July, 1900
Snider, John B	. Okotoks	
Steffes, Ferdinand	.   Morinville	15 November, 1900
Steries, Joseph	Morinville, Tiree Saltoun	19 December 1000
Stanhens Charles	Saltoup	12 December, 1900
Schlegel, Frank	. Duhamel	.26 January 1901
Smith, Alfred A	Prince Albert	30 May, 1901
Shaw, Ezra	. Davin	29 August, 1901
Spooner, Francis W	. Red Deer Hill.	. 7 September 1901
Stewart, Archie	Edmonton	
Stulz, Frank	St. Albert	18 December, 1901
Simpson, Robert N	Edmonton. Strathcona	
Signary Peter	Anthracite	18 Tanuary 1009
Sickavitch, Jah	Grenfell.	15 March 1902
Smith. Samuel W	Leduc	23 April. 1902
Size, Francis W.	. Whitewood.	98 June 1902
Smith, George H	Boharm. Tregarva	<sup>1</sup> 7 August, 1902
Swartz, Jay	. Tregarva	25 August, 1902
Strauss, Abram	Rosthern	11 September, 1902
Shantz, Jeremian B	Didsbury	November, 1902
Still William	Vegravilla	18 December, 1902
Stewart James A	Vegreville. Beaver Hills	13 December, 1902
Strom, Theodore	Calgary	9 March, 1903
Shields, William K	Strathcona	13 May, 1903
Simonson, Henry	. Northern	6 June, 1903
Smith, Larnet E	. Ponoka	13 July, 1903
Smith, Henry T	Kenlis	22 August, 1903
Stradland Frie	Carnduff	16 September, 1903
Surgeson Peter	Percival Qu'Appelle Station Coalfields	23 October 1903
Storey. John W	Coalfields	4 November, 1903
Springstein, Cecil B	Regina	19 December, 1903
Sim, John	Regina Grenfell.	15 March, 1904
Simonin, L. L	.:Wolselev	1 66
Scott, Robt	. Creelman	23 July, 1904
Snearer, r. D	Carlton	14 September, 1904
Smith J. W.	Moose Jaw	15 October, 1904
Schatz, Robert	Strathcona	
Swift, W. T	Edmonton	4.4
Stephenson, C. H	Drinkwater	28 October, 1904
Schiefner, F. L	. Milestone	44
Thompson, Charles K	Wolseley	29 September, 1899
Thompson, Hugh	Moose Jaw	10.1)
Taylor James A	Indian Hand	18 December, 1991
Thompson Edward H	. Indian Head	17 January, 1902
Thurlby, Fred	. Indian Head	30 Angust 1902
Townsend, Russell C	Canmore	20 October, 1902
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## Schedule of Holders of Certificates of Qualification under The Steam Boilers Ordinance—Continued.

· · · · · · · · · · · · · · · · · · ·		
NAME	ADDRESS	DATE OF ISSUE
	Third Class—Continned	
Thomas, C. L. G	Glen Ewen	13 May, 1903
Thompson, Luke D	Alameda	14 August, 1903
Ternan, J. Henry	Boharm. Gleichen	22 August, 1903
Turner, Leonard J Terry, Peter	Okotoks	
Trippel Friedrich	Rosthern	
Turnbull, Robt	'Strathcona	18 April, 1904
Townsend, Leon E	Davidson	·15 July, 1904
Tucker, G. H	Balgonie	19 July, 1904
Trussier, A. E	Highland Park Moosomin	27 September, 1904
Thousan A C	Dunleath	21 October, 1904
Thomson, 11. C		
Utas, Pete	Wetaskiwin	13 February, 1903
Umbach, William	Spruce Grove	13 May, 1903
TT 1 TTT'11'	Strandle and a	0.0 ( ) 1000
Vogel, William	Millet	9 October, 1899
Vicar William J.	Whitewood	25 Angust 1902
Vanacker, Louis	Strathcona Millet Whitewood St. Albert	13 May, 1903
Vidal, James A	Katepwe	22 August, 1903
7771	414	
Witmer, Abram M	Strathcona	9 October, 1899
Wilson, J. B	Calgary	19 July, 1900
Welk, D. A.	Rosthern	20 November, 1900
Wiebe, Heinrich P	Hague	'30`May 1900
Wilson, William J	Indian Head	26 August, 1901
Ward, William T	Grenfell	29 August, 1901
Werner, Thomas J	Carlyle Edmonton	18 Degrapher, 1901
Wnlff, Nick	Carievale	6 May 1902
Wiebe, Henry K	Rosthern	23 June, 1902
Walker, Robert	Edmonton	18 August, 1902
Wyatt, William R	Drinkwater	18 September, 1902
Woods, Thomas	Wapella	10 October, 1902
	Coalfields Manor	
Wood, John J.	Gainsborough	10 November, 1902
Wickham, William S.	Brookside	6 March 1903
Woolsey, William	Carnduff. Qu'Appelle Station Indian Head	5 June, 1903
Wagnian, Wendelin	Qu'Appelle Station	3 July, 1903
Wader Frank	Beaver Hills	18 September, 1903
White, William E	Indian Head	7 December, 1903
Wells, Charley	Rosenroll	18 <b>A</b> pril, 1904
Winn, Wm. S	Moose Jaw	15 July, 1904
Willock, Robt. G	Willocks	00 T1 1004
Weaver, Lee Walker W I	Redvers Broadview	28 July, 1904 13 October 1904
Wardrop, John L.	East Clover Bar	15 October, 1904
Wilson, J. H.	Prince Albert	18 October, 1904
Wright, Geo. W	Prince Albert	28 October, 1904
Westcott, Edward	Whitewood	17 Jannar <b>y</b> , 1904
Will Lewis	Bankhead	ы Januar <del>y</del> , 1904
Young, Arthur	Banff	14 March, 1904
Young, Geo	Brancepeth	14 September, 1904
	•	_
Zuenike, F. C.	Urqubart	18 December, 1901

## ACCOUNTANT'S BRANCH.

Staff	1 accountant. 1 assistant accountant. 1 clerk.
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In the former part of the report reference was made to the expenditure incurred by this department during the past six years from 1899 to 1904 inclusive. The following statement will help to illustrate the amount of work done by this branch of the department during the year:

Total amount voted for public works	5,677	\$611,500 ( 611, <b>4</b> 19 5	
paid to credit of general revenue		12,198	37
accounts		141,112	71
Improvement Districts examined and passed for payment	846		
	6,523		
Number of cheques issued in payment of accounts in Large Local Improvement Districts  Amount received in payment overdue taxes in Small Local Improvement Districts and paid through trusts account to proper	2,300		
districts		26,136	37
Number of cheques issued do Amount received in payment of taxes in school	2,467		
districts and forwarded to districts  Number of cheques issued  Total cheques	1,600 6,367	13,618 (	95
Total amount dealt with through books of department during year		\$804,485 (	90

As already stated, the sum of \$239,197.77 more than last year was expended during 1904, the total amount dealt with through the books of the department being \$804,485.00, or an increase of \$398,085.00 over the amount of work handled in 1903.

By way of explanation it might be stated that the apparent decrease from \$14,148.13 to \$12,128.37 in the amount of departmental revenue is rather misleading, as in 1903, \$3,000.00 received from the Dominion Government on account of reimbursements for works performed by this department was included in departmental revenue. In view of this fact, the actual departmental revenue would increase during 1904 by something over \$1,000.00.

## Administration and Supervision.

As in the previous reports under this heading, information was given to show the cost of supervision and inspection of public works. The cost of superintendance and inspection was 1.20% in 1903, and notwithstanding the increase in work and the additional assistance it had fallen to 1.02% this year. The cost of administration and supervision was 3.30% in 1903, and this year it was 4.49%. The increase is accounted for by the cost of local improvement administration being added to cost

of the regular staff, which was not done heretofore. Providing the local improvement staff expenditure was omitted the cost of administration

and supervision would be 3.03%.

The subjoined statement will show the total amount dealt with cost of staff, percentage of cost of administration, amount expended on works requiring superintendence and inspection and percentage of cost of such inspection.

Total amount dealt with by the department during the		
year as shown by foregoing statement	\$804,485	00
Total expenditure for departmental staff	24,393	84
Percentage of cost of administration	3	03
Percentage of cost of administration including local im-		
provement staff	4	59
Amount expended on dams, ferries, maintenance bridges		
roads and other public works requiring superintend-		
ence and inspection	338,527	17
Amount expended for superintendence and inspection	3,475	73
Percentage of cost for superintendence and inspection.	1	02

The low cost of administration and supervision, and for superintendence and inspection, has been due in a great measure to efficient administration of departmental affairs and not to any decrease in salaries of the staff, which on the contrary, have been increased.

#### SURVEYS BRANCH.

	(Directors of Surveys
Staff	
	9 district surveyors and engineers

REGINA, January 31st, 1905.

John Stocks, Esq.,

Deputy Commissioner of Public Works,

Regina, Assa.

SIR,—I have the honour to report as follows regarding the work in

the surveys branch during the past year.

The office work in connection with this branch consists largely of preparing instructions for the district surveyors and engineers, receiving and examining their returns, filing plans in the Land Titles office and the Department of the Interior at Ottawa, examining titles received for the roadways according to said plans and settling claims to compensation on account of lands required for right-of-way and damage to private property affected by the surveyed trails and drains.

The statement below will give an idea of the documents filed in the department and also show the nature of the work done during the year.

Surveys carried forward from 1903	386
Surveys requisitioned for during 1904	465
Surveys for which instructions were issued	580
Surveys completed	382
Plans received and recorded	274
Field books received and recorded	28
Preliminary agreements for right of way received and	
recorded	466
Transfers received and recorded	169
Certificates of titles received and recorded	422
Amount paid for right of way	\$15,848.71

Average price per acre	\$5.00
Miles of road allowance for which applications to lease	•
have been received	130
Number of applications	61
Miles leased, renewals 163, new leases 35, total	198
Number of payments made in settlement of claims to	
compensation for right of way on account of	
surveyed roads and drains	467
Number of owners written under Ordinance	233
Number of owners written under Ordinance, second time,	
(on reconsideration)	35
Number of owners accepting second ruling	32
Number of these cases unsettled	10
Appeals to arbitration	1

After the amendment to The North-West Territories Act was passed in 1902, vesting the land required for surveyed roads in the Crown, on filing a copy of the plans in the Land Titles office, the practice of securing transfers from the owners was abandoned, it being thought that the land was vested in the Crown when the plans were deposited with the several registrars. On a closer investigation, however, it was found that in some of the Land Titles offices the plans were not even given a day book number and therefore could not be said to be filed in any sense of the word, and when action by the registrars was insisted upon, it was claimed by them that The Land Titles Act and The North-West Territories Act conflicted regarding road plans and further action was refused. When the matter was further followed, it was found that the real cause of delay was lack of assistance to do the necessary work in connection with the filing of these plans, which difficulty was overcome by placing a clerk paid by this department, in the Land Titles offices at Regina and Calgary, the Land Titles office at Battleford having very little of our work to do, while at Prince Albert and Edmonton it was taken hold of with a strong hand and brought up to date, or nearly so, with their own staffs early in the year, thus placing themselves in a position to deal with road plans as they are sent to them in future. In October the Department of the Interior agreed to pay the salary of our clerk in the Regina office, but we continued to retain the one in the Calgary office to the end of the year and it is to be hoped that their services in both offices will be continued at least until all back work is closed up. The clearing up of the old work has enabled us to settle many old claims to compensation and a decided improvement is noticeable in the tone of the correspondence reaching the department from owners of lands affected by road surveys, and it it is expected that during the first six menths of 1905 the greater part of the outstanding claims will be settled.

A word of explanation might be given regarding the amendment of The Public Works Ordinance in 1903, whereby owners dissatisfied with the Commissioner's ruling as to their claims can submit the matter to arbitration. If it is considered that the amount offered by the Commissioner is not sufficient the owner may ask for a reconsideration, and if still dissatisfied with the second offer, steps may be taken to submit the matter to arbitration. Where the claims of the owner are considered reasonable by the Commissioner payment is made in accordance therewith, otherwise an offer is made under the provisions of The Public Works Ordinance. You will notice in the statement above that 233 offers have been made, and it has been necessary to write only 35 of these a second time and of that 35 all but three have accepted the amount offered. In all ten cases

remain unsettled while only one has taken steps to submit the matter to arbitration. So it may be assumed that these cases have been settled very satisfactorily to the settlers.

At the beginning of the season the Commissioner ruled that no more trails should be opened across country, but instead traffic be confined to the statutory road allowances, making diversions around natural obstructions where the estimated cost of improvement would not exceed the amount necessary to pay for the land for right of way should a diversion survey be made. In some cases, however, the settlers have agitated for the opening of blind lines or centre section lines, especially where the towns on the several railways are situated midway between the statutory road allowances running east and west which are two miles apart, but in each case, before such roads are opened, it has been necessary for those interested to secure agreements from the different owners whereby they agree to give the land required for the right-of-way. This method has been found to be most satisfactory in every case.

Arrangements were made with the Department of the Interior, at Ottawa, early in the year by which they agreed to make reservation for the land required for our surveyed trails, which affected unpatented lands, if certified tracings of the surveyor's plans are filed with them for that purpose. This method of dealing with trails through homestead property avoids the usual delay which was invariably experienced under the old system of securing assignments from the entrants for the area required for roads through unpatented lands, such assignments to be deposited with the Department of the Interior, it being almost impossible in some cases to establish communication with them, especially if the homestead had been abandoned without notification to the Dominion Land office. These arrangements, while lessening the correspondence of the office, require additional assistance to prepare the necessary copies of the plans, but the advantage derived, from being able to acquire the title to the lands at once, can be readily understood.

An effort has also being made during the past year to arrive at an understanding regarding the old trails which were surveyed by the Department at Ottawa and transferred to the Lieutenant-Governor of the Territories for public use; for while The Land Titles Act provides for the right of way for these roads whether or not they are mentioned on the title of lands affected, it is found that a great deal of dissatisfaction exists throughout the Territories where lands were purchased without the knowledge of an existing trail therethrough. It is hoped, however, that steps will be taken at an early date to remove any misunderstanding in the future regarding this matter, when lands affected by trails are purchased or homesteaded.

Mention might also be made of the material assistance rendered to the department by most of the companies holding lands within the Territories they, realising no doubt, the advantage to adjacent lands when road improvements are undertaken, have been most courteous regarding right-of-way required from their lands, and in many cases have made provision for the road in sale of lands before being compensated for the area taken. The co-operation in this respect on the part of the different companies controlling lands throughout the Territories does much towards relieving any dissatisfaction which might otherwise arise and which if once generated in any locality is carried on interminably.

The local organisations will in time no doubt prove of great assistance to the department in determining the necessity of deviation surveys in preference to injudicious attempts to improve the statutory road allowances, but at the present it is regretable that the councils arc too apt to endorse applications for surveys without being fully apprised of their nature or necessity, such action will, however, diminish as the more efficient settlers are selected as representatives in the local councils.

In addition to the surveys made by the district surveyors and engineers it was found necessary to engage local surveyors in order to have the more urgent work completed before the hard weather rendered it necessary to close operations in the field. R. C. Laurie, D.L.S., made a survey to connect the bridge across the Battle river at Battleford with the Saskatoon-Battleford trail, also completed the survey of the old Battleford-Cut Knife trail for a great part of the way. H. H. Moore, D.L.S., Calgary, surveyed the new road from Calgary to Cochrane south of the Bow river, a portion of the Calgary-Knee Hill trail and a diversion to the old Calgary-Millarville trail to permit access to the new bridge site below the Weasel Head crossing of the Elbow river on the Sarcee Indian Reserve. Samuel Brodie, D.L.S., Fort Qu'Appelle, retraced the old Troy-Prince Albert trail between South Qu'Appelle and Fort Qu'Appelle, also some surveys for right-of-way for drains near Qu'Appelle.

Owing to the increased amount of work in the former district of East Assiniboia it was found necessary to divide the district into Qu'Appelle and East Assiniboia. W. T. Thompson, district surveyor and engineer of East Assiniboia retaining Qu'Appelle or the western part of his old district, while H. K. Moberly, D.L.S., formerly assistant to A. Driscoll, district surveyor and engineer for North Alberta, was engaged to take charge of

East Assiniboia with headquarters at Moosomin.

C. H. Ellacott having resigned his appointment as drainage engineer in April, this work was turned over to T. H. Wiggins formerly assistant ehicf surveyor, who also took charge of the District of Centre Assiniboia with headquarters at the department.

A list of the surveys completed and examinations made in the various Public Works Districts will be found in the report of each surveyor and

engineeer. Your obedient servant,

F. J. Robinson, Director of Surveys.

## Public Works District of North Alberta.

Edmonton, Alberta, December 31st, 1904.

JOHN STOCKS, Esq.,

Deputy Commissioner of Public Works,

Regina.

SIR,—I have the honour to report on the work performed by this office during the past season, as follows:—

My first instructions arrived early in May and I started work on the 18th of the month, keeping my party in the field until the 24th of November and succeeded in completing about all the work for which instructions had been sent me, with the exception of the Victoria trail, which has again been laid over owing to pressure of other work. From a weather point of view the work of 1904 has been more satisfactory than for some years past, the wet years of 1899-1903 seem to have given place to a dry term, as sloughs that last year were full of water are now dry, and roads that of late have been almost impassable on the same account are now again in good shape for travel. In this connection I have to say that much is due the various labour districts which seemed to realise that the dry years was the proper time for the repair of roads, and the result has been three times the amount of work as during any one of the last five years.

In the matter of drains, only requests for the drainage of permanent water areas seem to have been made this year, which considerably lessened the amount of work of that description we usually have to do during a season. It is realised, however, that the present dry seasons which have apparently begun will give place again to wet, and there is an evident desire to prepare for them in the shape of drains, so that we

may look for an increase in that class of work next year.

Two important pieces of work have been completed this year, first, the bridging of the Borwick stoughs on the Battleford trail, which have been a source of much trouble for the last four years, and second, the drainage of Favels and intermediate lakes north of town. This last piece of work has been under construction for the last three years and to be appreciated must be seen. A third piece of work of this description is well under way, viz., the reclamation of the lake country between Stratheona and Ellerslie, six miles south of the former place. Ditcher No. 1 has been employed on this work during the past season and has completed over two miles of drain, the cuts of which are in places over twelve feet deep. It will probably take another season to complete this drain.

A great deal of work has been done generally this year by the department in the shape of grading and providing bridges, etc., but being under the supervision of others and requiring only an oceasional inspection by this office, will not be detailed in this report.

In conclusion, I have to say that I have been fortunate in my assistants during the past season. A tactful staff is of great help in dealing with the class of work coming under this office, and I think there has been very little friction caused.

Following is a list showing the different surveys made.

Your obedient servant,

A. Driscoll,
District Engineer and Surveyor.

#### DRAINS.

Drainage of lake on north boundary of section 36 township 52 range 24 west of the fourth meridian.

Drain No. 4 renewing grade and slope stakes.

Drain No. 110 renewing grade and slope stakes.

Drain No. 110 renewing grade and slope stakes.

Drain No. 110 renewing grade and slope stakes. Drain between Two Creeks and Star, renewing grade and slope stakes.

Drain along road allowance east of section 29 township 54 range 22 west of the fourth meridian.

Drain along north boundary of section 32 township 52 range 27 west of the fourth meridian.

Drain along east boundary of sections 5, 8, 17, 20 and 29 township 55 range 23 west of the fourth meridian.

Restaking and extending drain in sections 13 and 23 township 56 range 24 west of the fourth meridian.

Restaking drain on north boundary of section 22 township 50 range 24 west of the fourth meridian.

Examination of drain between Two Creeks and Star for final payment.

Drain on the south boundary of section 3 township 51 range 14 west of the fourth meridian.

## NEW ROADS and Trails.

Dowler hill road, Edmonton settlement,

Survey of road across Mounted Police Reserve, Fort Saskatchewan.

Road to bridge in N.W. I section 13 township 54 range 23 west of the fourth meridian.

Road along blind line north of sections 13, 14, 15 and 16 township 50 range 24 west of the fourth meridian.

Road between north and south halves of section 11 township 54 range 25 west of the fourth meridian.

Road across section 11 township 52 range 23 west of the fourth meridian,

Re-survey of part of St. Albert trail in section 29 township 53 range 25 west of the fourth meridian.

Survey of road across section 24 township 50 range 28 west of the fourth meridian.

Survey of road across section 26 township 50 range 27 west of the fourth meridian.

Survey of road across section 18 township 50 range 27 west of the fourth meridian.

Survey of road across section 7 township 50 range 27 west of the fourth meridian.

Survey of road along blind line east of section 26 and north of section 25 township 49 range 28 west of the fourth meridian.
Survey of Millett and Pigeon lake trail in township 47 ranges 24, 25; 26, 27

and 28 west of the fourth meridian, and ranges 1 and 2 west of the fifth meridian. Survey of road around the Borwick slongh in township 56 range 16 west of the fourth meridian.

Re-survey of Cooking lake trail.

## ROAD Diversions.

Diversion on N.w. 4 section 9 township 53 range 25 west of the fourth meridian.

Survey through section 20 township 52 range 24 west of the fourth meridian, to connect Main street, Strathcona, with the Hay lake trail.

Road diversions in sections 19 and 20 township 51 range 23 west of the fourth meridian.

Road diversion north boundary section 23 township 52 range 1 west of the filth meridian.

Road diversion in s.w. 1 section 24 township 51 range 24 west of the fourth meridian.

Road diversion along east boundary of section 26 township 50 range 24 west of the fourth meridian.

Road diversion in N.E. 4 section 16 township 50 range 24 west of the fourth meridian

Road diversion in N.E. 1 section 7 township 56 range 23 west of the fourth meridian.

Road diversion through section 11 township 47 range 25 west of the fourth

Road diversion on road leading east from Leduc in sections 21, 22 and 23 township 49 range 24 west of the fourth meridian.

Road diversion in section 3 township 47 range 27 west of the fourth meridian. Road diversion around Huard lake in section 4 township 47 range 23 west of the fourth meridian.

Road diversion between north and south halves of section 5 township 47

range 23 west of the fourth meridian.

Diversions along blind line road north of sections 16 and 17 township 47 range 23 west of the fourth meridian.

Road diversion in section 11 township 56 range 19 west of the fourth meridian.

Road diversion in section 22 township 56 range 19 west of the fourth meridian.

Road diversion in section 21 township 56 range 19 west of the fourth meridian.

Road diversions in sections 18 and 19 townshlp 47 range 23 west of the fourth meridian.

Road diversions in sections 23, 24 and 26 township 56 range 19 west of the

fourth meridian.

Road diversion in s.E. 4 section 30 township 53 range 21 west of the fourth

meridian.

Road diversion across school section 29 township 55 range 23 west of the fourth meridian.

## EXAMINATION and Inspection.

Inspection of road and location of bridge over Sturgeon river at St. Albert. Inspection and location of bridge, Point-aux-Pins creek, east boundary section 14 township 54 range 23 west of the fourth meridian.

Examination of bridge over Beaver creek in N.E. ‡ section 33 township 55 range 19 west of the fourth meridian.

Examination of road around Borwick slough.

Examination and levels for grade at Hardisty bridge, section 28 township 55 range 22 west of the fourth meridian.

Examination of road north boundary section 36 township 52 range 24 west of

the fourth meridian.

Examination of Dowler's hill road.

Inspection of ditch and grading on 14th base line west of Edmonton. Examination of road through Stoney Indian Reserve.

Inspection of grading along ditch No. 2.

Examination and inspection of work done on correction line north of township 54 ranges 21 and 22 west of the fourth meridian.

Examination and inspection of road work near bridge over Mill creek, section 28 township 52 range 24 west of the fourth meridian.

Examination of road through sections 18 and 19 township 50 range 27 west of the fourth meridian.

Examination for road in township 47 range 23 west of the fourth meridian. Examination of Wetaskiwin and Pigeon lake trail from township 46 range 27 west of the fourth meridian, north.

Examination of road south of sections 6 and 5 township 47 range 24 west of

the fourth meridian.

Examination of road along east boundary of section 21 township 56 range 19 west of the fourth meridian.

Examination of road allowance along north boundary of section 22 town-

ship 56 range 19 west of the fourth meridian. Examination of road along east boundary of section 28 township 56 range 18

west of the fourth meridian. Examination of road in section 30 township 56 range 15 west of the fourth

meridian. Examination of road along north boundary of section 8 township 53 range

21 west of the fourth meridian.

Examination of drain No. 1. Examination of part of Victoria trail across sections 2 and 3 township 55 range 22 west of the fourth meridian.

#### Lacombe Public Works District.

RED DEER, ALBERTA, December 31st, 1904.

John Stocks, Esq.,

Deputy Commissioner of Public Works,

Regina, Assa.

DEAR SIR.—I have the honour to submit the following report in connection with the work performed by me in the Lacombe Public Works District for the season 1904, a classified schedule of which is hereto attached.

Owing to an unusually late spring with heavy rains, which rendered the roads impassable, I was unable to commence field operations until May 25th when I proceeded at once for the southern part of the district. From this point I intended working north and as far east and west of the

Calgary and Edmonton branch of the Canadian Pacific railway as my work extended, which in a number of cases exceeded flfty miles, and finally completing the season's operations in the vicinity of Dried Meat lake about sixty miles east of Wetaskiwin. I found no difficulty in handling the work for which instructions were issued under the system adopted by your department, that is, by issuing instructions in order along the route laid down by the district engineer and surveyor before commencing work in the spring. This is very necessary in the Lacombe d'strict where the work is spread over a large and comparatively narrow area, and it can be readily understood that considerable time would be lost if it was found necessary to return over the same route in order to complete the work which has been overlooked. I am pleased to report having with one or two exceptions, completed all the work for which instructions we: e issued, this, however, was largely owing to an unusually favourable season and the excellent condition of the roads. I found a marked improvement in the condition of the roads throughout the whole of the district. Favoured by an unusually dry season and liberal grants from your department the officials of the several districts were enabled to perform a larger amount of permanent work than was possible in the last few years.

From what information I could gather this season the new districts formed earlier in the year seem to be accomplishing the work intended and the interest taken by the general public in the improvement of the roads is shown, in many cases by a voluntary increase of assessment over that levied under the old system and in all cases the money has been

economically expended.

I found that owing to the change in conditions, that is from a wet to a dry season, a number of road surveys made some years ago and also some of which have been applied for, may be abandoned, the sloughs which were to be avoided having in the meantime become sufficiently dry to admit of their being graded. This is more noticeable in the cases of the old trails east of Wetaskiwin which a number of settlers have for some time urged the department to survey and establish. These, however, have been allowed to stand pending the final location of the branch lines of the Canadian Pacific railway and also with a view of avoiding if possible, the irreparable damage done by the survey of these roads by cutting the lands thereby into several fractions. If the moderately dry seasons continue for a few years I am of the opinion that there will no necessity for establishing these trails, as the road allowance will be opened and improved in lieu of the same without any considerable difficulty.

I regret to say that the steam ditcher operating in the vicinity of Morningside encountered some very bad ground, and owing to this and the lateness in starting work (about the middle of August), the work was not what might be expected of a machine of this description. There was very little drainage work in the past season, all of which was undertaken by the districts, but, as they were constructed and the right of way arranged by mutual agreement, no report or assessment was

necessary.

My party, throughout the whole season from May 25th to November 3rd, consisted of one assistant, four men and a cook. My transport, etc., included two teams and two waggons with the usual camp equipage for a party of this size. Your obedient servant,

A. E. FARNCOMB, District Engineer and Surveyor.

#### ROAD Diversions.

Change in Coal lake trail in sections 35 and 26 township 46 range 23 west of the fourth meridian.

Change in Calgary and Edmonton trail in section 24 township 34 range 29 west of the fourth meridian.

Change in road diversion in section 21 township 35 range 26 west of the fourth meridian.

Road diversion in section 34 township 37 range 26 west of the fourth meridian.

Road diversion in section 20 township 37 range 27 west of the fourth meridian.

Road diversion in section 35 township 38 range 27 west of the fourth meridian.

Road diversion to hridge over Blindman river between townships 39 and 40 range 1 west of the fifth meridian.

Road diversion section 34 township 39 range I west of the fifth meridian.

Road diversion section 33 township 39 range 1 west of the fifth meridian. Road diversion sections 4 and 5 township 40 range 1 west of the fifth meridian.

Road diversions around bend of Blindman river in section 34 township 39 range I west of the fifth meridian.

Change in Blackfalds and Buffalo lake trail section 17 township 39 range 26 west of the fourth meridian.

Road diversion in sections 25 and 26 township 41 range 26 west of the fourth meridian.

Road diversion in section 10 township 42 range 26 west of the fourth meridian.

Road diversion in section 31 township 41 range 24 west of the fourth meridian.

Road diversion in section 28 township 46 range 21 west of the fourth meridian.

Road diversion in section 20 township 46 range 21 west of the fourth meridian.

Road diversion in sections 5 and 32 township 45 range 22 west of the fourth meridian.

Road diversion in sections 21 and 28 township 45 range 22 west of the fourth meridian.

Road diversion in section 23 township 45 range 22 west of the fourth meridian.

Road diversion in section 6 township 44 range 20 west of the fourth meridian.

Road diversion in section 13 township 45 range 21 west of the fourth meridian.

Road diversion in section 1 township 45 range 21 west of the fourth meridian.

Road diversion in section 11 township 46 range 20 west of the fourth meridian.

Road diversion in section 36 township 45 range 20 west of the fourth meridian.

Road diversion in section 29 township 45 range 19 west of the fourth meridian.

Road diversion in section 28 township 45 range 19 west of the fourth meridian.

Road diversion in section 15 township 45 range 19 west of the fourth meridian.

Road diversion in section 21 township 45 range 19 west of the fourth meridian.

Road diversion in section 11 township 45 range 19 west of the fourth meridian.

Road diversion in section 11 township 44 range 23 west of the fourth

meridian.

Pood diversion in sections 95 and 26 township 40 range 27 west of the

Road diversion in sections 25 and 36 township 40 range 27 west of the fourth meridian.

Road diversion in section 29 township 37 range 27 west of the fourth meridian.

Road diversion east of section 35 township 43 range 27 west of the fourth meridian.

Road diversion to bridge over the Medicine river in section 7 township 38 range 2 west of the fifth meridian,

Change in road through the property of H. H. Gaetz, along the C. & E. Railway north of Red Deer.

Road diversion in section 10 township 39 range 24 west of the fourth

meridian.

#### DRAINS.

Survey of drain in section 11 township 45 range 22 west of the fourth mer-

Survey of drain sections 22 and 23 township 38 range 27 west of the fourth

meridian.

Survey of right of way for drain to drain slough in sections 20 and 21, 28 and 29 township 39 range 24 west of the fourth meridian.

## Inspections and Reports.

Report on road east of sections 27 and 34 township 41 range 25 west of the fourth meridian.

Report on road diversion in section 24 township 46 range 25 west of the fourth

meridian

Report on road from Red Deer east.

Report on road from Bowden east. Report on road from Bowden east. Report on road in section 1 township 40 range 22 west of the fourth meridian. Report on road east of section 19 township 44 range 25 west of the fourth meridian.

Report on road diversion east of section 22 township 44 range 23 west of the

fourth meridian.

Report on continuation of survey along blind line north of sections 27, 28 and 29 township 43 range 25 west of the fourth meridian to the Calgary and Edmonton trail.

Road west from Blackfalds and Calgary and Edmonton trail in township 39

range 27 west of the fourth meridian.

Report on road diversion in sections 15 and 16 township 37 range 26 west of the fourth meridian

Report on old Hudson's Bay trail west to Rocky Mountain House.

Report on road in section 34 township 38 range 22 west of the fourth meridian.

Report on road to proposed ferry over Red Deer river at Tail creek section 34 townships 38 range 22 west of the fourth meridian.

Report on road from the north-east corner of section 34 township 46 range 21 west of the fourth meridian south to Battle river and necessary diversions to give access to Duhamel post office.

Report on road through sections 3, 10, 15 and 22 township 44 range 20 west of

the fourth meridian.

Report re road westerly from Egans bridge south of the river across section 16 township 39 range 28 west of the fourth meridian.

Report re necessity of a road to give access to sections 28 and 34 township 38 range 27 west of the fourth meridian.

Report re road north of section 31 township 39 range 26 west of the fourth meridian.

Report re proposed road through townships 46 and 47 range 25 west of the fourth meridian.

Report resurvey to connect with road running west to Blackfalds.

Report re road diversion north of section 7 township 44 range 25 west of the fourth meridian.

Report re road in townships 46 and 47 range 25 west of the fourth meridian. Report re survey in sections 17 and 18 township 46 range 23 west of the fourth

meridian. Report rediversion from road allowance north of sections 31 and 32 township

46 range 22 west of the fourth meridian.

Report and partial survey of road north of sections 1, 2, 3 and 4 township 39 range 1 west of fifth meridian. Report and partial survey of road north of sections 7, 8, 9, 10, 11 and 12 township 37 range 1 west of the fifth meridian.

Report re closing present trail across the Calgary and Edmonton railway track at Lacombe.

## NEW Roads.

Road in townships 46 and 47 ranges 24 and 25 west of the fourth meridian. Road from Bear lake to Pigeon lake.

Road north of sections 17 and 18 township 46 range 23 west of the fourth meridian.

Road west of Coal lake in sections 2 and 11 township 47 range 23 and sections 26 and 35 township 46 range 23 west of the fourth meridian.

Road along blind line north of section 13 township 44 range 19 and sections

18 and 19 township 44 range 18 west of the fourth meridian.

Road to Little Red Deer river in sections 19 and 30 township 35 range 1 west of the fifth meridian.

Road to Little Red Deer river in section 35 township 34 range 2 west of the

fifth meridian.

Road across sections 26 and 27 township 34 range 2 west of the fifth meridian. Completion of road from Penhold to Pine lake in sections 28 and 29 township 36 range 25 west of the fourth meridian.

Road south from Pine lake post office in section 22 township 36 range 25

west of the fourth meridian.

Road to Pine lake creek bridge in section 22 township 36 range 25 west of the fourth meridian.

Road south of Egan's bridge in section 15 township 39 range 28 west of the

fourth meridian.

Road in sections 1, 2 and 6 township 42 ranges 25 and 26 west of the fourth meridian.

Road across sections 27, 28, 26, 35 and 36 township 43 range 22 west of the fonrth meridian.

Road through township 39 ranges 23 and 24 west of the fourth meridian. Road in section 19 township 36 range 1 west of the fifth meridian. Road to Lacomhe cemetery in section 31 township 40 range 26 west of the fourth meridian.

Road through section 29 township 46 range 21 west of the fourth meridian. Completion of road from Burnt lake to Evatts post office, in township 38 range 2 west of the fifth meridian.

Road across section 22 township 44 range 21 west of the fourth meridian. Road in sections 29 and 30 township 35 range 28 west of the fourth meridian. Change in Calgary and Edmonton trail in sections 20, 28 and 29 township 41 range 26 west of the fourth meridian.

## Public Works District of Calgary.

Calgary, January 1st, 1905.

John Stocks, Esq.,

Deputy Commissioner of Public Works,

Regina, Assa.

SIR,— I have the honour to submit the following report of the work done by me in the Public Works District of Calgary during the year 1904.

Office work was somewhat behind at the first of the year, owing to my illness in October and November, 1903, and I was left alone to attend to it until the middle of March, when I secured a draughtsman for some

New instructions for urgent work were sent me as early as the 13th of February and some more in April and May. This together with some surveys and examinations left over from the previous season, gave me more than two months work in the field, which was done, the plans and reports being sent in before I organised the party for the regular season's work.

On the 1st of August I took the field with full party going south, making surveys east and west of the Macleod trail as far as Cayley, coming round by Pekisko, Tongue Creek, Lineham, Millarville and Priddis to Calgary, where I arrived on the 10th of October.

After two days spent at Calgary to attend to some urgent work near town, I left for the north, making surveys east and west of the Calgary and Edmonton trait as far as Olds, coming back by way of Beaver Dam

creek, Bradbourne, Cochrane and the Sarcee Indian Reserve. I arrived at Calgary on the 25th of November and discharged the party, keeping two men on hand to make a few examinations of proposed surveys and take levels for proposed drains.

Work for the season was completed on the 22nd of December. I am now preparing, with the help of a draughtsman, plans and reports of

surveys which have not already been sent in.

SCHEDULE of surveys made during the year 1904.

## OLD Trails,

Diversion of the Morleyville trail in sections 3, 10 and 11 township 26 range 4 west of the fifth meridian.

Diversion of the Morleyville trail in section 13 township 26 range 6 west of the fifth meridian.

Diversion of the Morlevville trail in section 17 township 26 range 5 west of the fifth meridian.

Diversion of the Morlevville trail in sections 11 and 12 township 26 range 4 west of the fifth meridian.

Diversion of the Macleod trail in sections 20 and 29 township 21 range 29 west of the fourth meridian

Diversion of Patrick's trail in section 33 township 21 range 2 west of the fifth meridian.

Diversion of trail of Sarcee Indian Reserve.

#### NEW Roads

Road on blind line north of sections 13, 14, 15, 16, 17 and 18 township 31 ranges 2 and 3 west of the fifth meridian.

Road through sections 17 and 20 township 20 range 29 west of the fourth meridian.

Road through sections 3, 4, 5, 7, 8 and 9 township 19 range 27 west of the ourth meridian.

Road to connect Pekisko with trail surveyed to High river township 18 range 1 west of the fifth meridian.

Road on west half of section 8 and diversion east of section 17 township 19

range 28 west of the fourth meridian.
Road on sections 6 and 8 township 20 range 2 west of the fifth meridian.

Road between the north and south forks of Sheep creek township 20 range 3 west of fifth meridian.

Road through sections 16, 21, 28, 33 and 34 township 21 range 3 west of the fifth meridian.

Road north of section 2 and part of section 1 township 22 range 1 west of the fifth meridian.

Re-survey of road on sections 16 and 21 township 24 range 1 west of the fifth meridian.

Road through sections 9, 10 and 11 township 27 range 1 west of the fifth meridian.

Road along blind line north of sections 18, 17, 16, 15, 14 and 13 township 30 range 2 west of the fifth meridian and north of section 18 township 30 range 1 west of the fifth meridian.

Road on sections 22, 27 and 32 township 32 range 2 west of the fifth meridian. Road on sections 3 and 4 township 29 range 4 west of the fifth meridian. Re-survey of Priddis road in section 22 township 22 range 3 west of the fifth

meridian.

Re-survey of part of road from Cochrane steel bridge to Jumping Pound creek townships 25 and 26 range 4 west of the fifth meridian.

#### DIVERSIONS.

Diversion of road surveyed last year in section 5 township 25 range 1 west of the fifth meridian.

Diversion of road in section 11 township 24 range 2 west of the fifth meridian.

Diversion of road across the fifth meridian north of township 24.

Diversion east of section 27 township 25 range 4 west of the fifth meridian

Diversion north of section 9 township 19 range 29 west of the fourth meridian.

Diversion north of section 11 township 17 range 29 west of the fourth meridian.

Diversion east section 13 township 17 range 27 west of the fourth meridian. Diversion south section 2 township 19 range 28 west of the fourth meridian. Diversion north of section 23 township 17 range 29 west of the fourth

Diversion east section 14 township 19 range 1 west of the fifth meridian. Diversion east section 16 township 19 range 1 west of the fifth meridian. Diversion north section 11 township 19 range 1 west of the fifth meridian. Diversion east of sections 20 and 30 township 16 range 28 west of the fourth

Diversion north section 25 township 29 range 29 west of the fourth meridian. Diversion east section 12 township 31 range 2 west of the fifth meridian. Diversish east section 4 township 32 range 2 west of the fifth meridian. Diversion north section 28 township 32 range 1 west of the fifth meridian. Diversion south section 5 township 27 range 4 west of the fifth meridian. Diversion east section 21 township 26 range 5 west of the fifth meridian. Diversion east section 5 township 24 range 4 west of the fifth meridian.

Completion of diversions sections 6 and 7 township 19 range 28 west of the

fourth meridian.

#### DRAINS

To drain slough in section 34 township 23 range 29 west of the fourth meridian: sketch and report.

To drain slough in sections 24 and 25 township 23 range 29 west of the fourth meridian: sketch and report.

To drain slough in sections 22 and 23 township 23 range 27 west of the fourth meridian; sketch and report.

To drain slough east section 17 township 19 range 28 west of the fourth meridian.

To drain sloughs north and west of section 10 township 20 range 2 west of the fifth meridian.

Taking levels to drain slough Blackfoot trail north section 12 township 24 range 29 west of the fourth meridian.

#### EXAMINATIONS and Inspections.

Examination and report about proposed road on section 9 township 24 range 29 west of the fourth meridian.

Examination and report about road north of township 24 ranges 28 and 29 west of the fourth meridian.

Examination and report about road as an outlet to section 25 township 23 range 1 west of the fifth meridian.

Examination and report about improvements required to roads in township 25 range 29 west of the fourth meridian.

Examination and report about Mission hill; repairs required. Examination and report about Bow Marsh bridge.

Examination and report about trails on Sarcee Indian Reserve.

Examination and taking levels for grade on road to Jumping Pond creek, township 25 range 4 west of the fifth meridian.

Taking levels for grade on North Morleyville trail near Cochrane, township

26 range 4 west of the fifth meridian.

Examination, sketch and report about Knee Hill trail, townships 24 and 25 ranges 28 and 29 west of the fourth meridian.

Examination and report about road from north houndary of section 22 township 20 range 29 west of the fourth meridian, to intersect Macleod trail on Sheep creek.

Examination and report about proposed diversion east section 24 township 23 range I west of the fifth meridian.

Examination of proposed diversion east of sections 16 and 21 township 30 range I west of the fifth meridian.

Examination of proposed diversion east section 14 township 32 range 2 west of the fifth meridian.

Examination of proposed new road from North Morleyville trail, north through townships 25 and 26 range 3 west of the fifth meridian.

Examination of proposed change of new road in section 20 township 25 range 4 west of the fifth meridian,

Examination of roads east of sections 5 and 8, and north of sections 9, 10 and 11, establishing north east corner of section 11 township 24 range 4 west of the fifth meridian.

Examination in sections 33 and 34 and adjoining part of Sarcee Indian Reserve, about road across and bridge site over Fish creek; levels for grade and cross section of creek.

Examination of road north section 36 township 24 range 1 west of the fifth

meridian, for ditch and improvements.

Examination of road east sections 4, 9, 16 and 21 township 23 range 29 west of the fourth meridian; draining and improvements.

Examination of road east sections 1 and 12 township 23 range 29 west of the

fourth meridian; levels taken for drain, general improvements.

Examination of Nose creek trail, bush trail in sections 30 and 31 township 25, section 6 township 26 range 1 west of the fifth meridian, and section 1 township 26 range 2 west of the fifth meridian; for required changes and improvements.

Examination and report of road near Kennedy's hridge east section 17 township 26 range 1 west of the fifth meridian.

Examination of road from Cochrane south to Elbow river; report and

estimate cost of improvements required.

Cross section of Elbow river at new site Weasel Head bridge, Sarcee Indian Reserve.

Examination of road north of section 20 and centre of section 23 township 32 range 2 west of the fifth meridian (for road overseer).

Building mounds of last year's survey section 2 township 30 range 3 west of

the fifth meridian. Remounding part of Macleod trail township 21 range 1 west of the fifth

meridian.

The distance I have travelled this season is much in excess of that of the two previous; the number of surveys and examinations was large, as the instructions for the different surveys required in each part of the district could not, in many instances, be issued, at the same dates it necessitated my going twice over part of the district.

Travelling was made much easier this year; the roads were in general in fairly good condition after the first of July owing to the dryness of the season, and also on account of the large amount of improvement work done by your department on the main roads throughout the district.

Your obedient servant,

ALBERT CHAS. TALBOT, District Engineer and Surveyor.

Public Works District of South Alberta.

Macleod, December 31st, 1904.

JOHN STOCKS, Esq.,

Deputy Commissioner of Public Works,

Regina, N.W.T.

SIR,— I have the honour to submit my annual report, showing the work done in the Macleod Public Works District during the year 1904.

Between 1st January and 31st May I was generally occupied in preparing returns of surveys made during the season of 1903, but several special trips were made to outside points during these months to make inspections and to obtain cross-sections for bridges.

On the 1st of June I organised a party and prepared to take the The season's work was taken up in the following order:-Stand Off, Cardston, Lethbridge, Macleod, Cowley, Blairmore, Cowley, Livingstone, Mountain Mill, Pincher Creek, Drywood river, Mountain View, Cardston, Taylorville, Cardston and Macleod,

The season, as a whole, was very favourable for surveying operations and a few days were lost on account of bad weather.

Separate reports accompanied by sketches have been transmitted to the department on the completion of each survey made.

OLD Trails.

None.

NEW Roads.

New road from Stand Off in sw 4 section 21 township 6 range 25 west of the fourth meridian, south-west through townships 5 and 6 ranges 25 and 26 west of the fourth meridian.

New road from Cardston N.E. 1 section 9 township 3 range 25 west of the fourth meridian to St. Mary river bridge, s.w. 4 section 23 township 3 range 25 west o the fourth meridian across Blood Indian Reserve.

New road from hridge over Old Man river, near Macleod section 10 township 9range 26 west of the fourth meridian, through sections 10, 15, east houndary 15, 23, east boundary 23 all in township 9 range 26 west of the fourth meridian.

New road from end of road (surveyed by F. W. Wilkins, D.L.S., from Pin-

cher Creek to the Crow's Nest Pass) at the east boundary of section 12 township 7 range 3 west of the fifth meridian to a connection with road (surveyed by F. J. Robinson, D.L.S., from near Cowley to the Crow's Nest Pass) in the s.w. 1 section 13 township 7 range 3 west of the fifth meridian and a connection from above mentioned road at north houndary of section 12 township 7 range 3 west of the fifth meridian giving outlet to Messrs. Eddy and Bradshaw.

New road connecting surveyed roads via Government bridge on Todd creek in section 31 township 7 range 1 west of the fifth meridian, through sections 31

and 32 township 7 range 1 west of the fifth meridian.

New road over old ford of Middle Fork of Old Man river from surveyed road in the N.E. 4 section 29 township 7 range 1 west of the fifth meridian, through sections 29, 32, 33 and 28 township 7 range I west of the fifth meridian to road allowance on north boundary section 21 township 7 range I west of the fifth meridian.

New road from north boundary section 20 township 9 range 2 west of the fifth meridian near the north-east corner of the section through sections 21 and 22 and N.E. 1 of 15, all in township 9 range 2 west of the fifth meridian, to give outlet to Messrs M. S. and T. J. Wilson.

New road in section 4 township 7 range 29 west of the fourth meridian connecting with Maclcod-Pincher Creek road to give outlet to Fred C. Austin, S.E. 1 section 4 township 7 range 29 west of the fourth meridian.

New road hetween north and south halves of section 25 township 5 range 30 west of the fourth meridian, and between north and south halves of section 30 township 5 range 29 west of the fourth meridian to give outlet to travellers from the east to the timber.

New road from coal mine in N.E. 4 section 8 township 5 range 30 west of the fourth meridian, through sections 12, 13 and 24 township 5 range 1 west of the fifth meridian, to connection with surveyed road from Pincher Creek to the mountains in s. w. 4 section 24 township 5 range 1 west of the fifth meridian.

New road to the timber from the north boundary of the N.E. 1 section 22 through sections 22, 21, 16 and 17 to the north boundary section 8, all in township 5 range 1 west of the fifth meridian.

New road between the north and south halves of section 24 township 3 range 25 west of the fourth meridian, to give more direct route to Cardston for

settlers toward the east.

New road and road diversions between the south ½ of section 2 township 1 range 25 west of the fourth meridian, on the International boundary line, and the range line road allowance east of range 25 west of the fourth meridian, through sections 2, 11, 12, 13 township 1 range 25 west of the fourth meridian, to give thoroughfare for immigration from the United States to Kimball, Cardston and other points toward the north.

#### ROAD Diversions.

Road diversion from old Macleod-Lethbridge surveyed road, to connect with new bridge across Belly river near Lethbridge, N.W. 1 section 1 township 9 range 22 west of the fourth meridian.

Road diversions from surveyed road, to connect with bridges, on road between Frank and Blairmore, in sections 35 and 36 fownship 7 range 4 west of the fifth meridian,

Road diversions in N.W. ½ section 19 township 8 range 1 and S.E. ½ section 25 township 8 range 2 west of the fifth meridian, to avoid a hill and marshy ground.

Road diversion in N.E. 1 section 10 township 7 range 1 west of the fifth

meridian, to secure hetter crossing of conlee.

Road diversions in N.E. ‡ section 12 township 6 range 2 west of the fifth meridian, and s.W. ‡ section 18 township 6 range 1 west of the fifth meridian, and N.w. 4 section 7 township 6 range 1 west of the fifth meridian, to obtain grade on hill and give approach to hridge site over Mill creek near north east corner section 12 township 6 range 2 west of the fifth meridian, connection on east end with surveyed road between Pincher Creek and Mountain Mill.

Road diversion in s.w. 1 section 27 township 5 range 30 west of the fourth

meridian, to avoid marsh.

Road diversion in s.w. 4 section 7 township 5 range 29 west of the fourth

meridian, to afford better crossing of coulee.

Road diversion in N.E. 1 section 23, S.E. 1 section 26, S.W. 1 section 25, all in township 5 range 1 west of the fifth meridian, to avoid marshy ground, connection

on eastern end with surveyed road from Pincher Creek to the mountains.

Road diversion from surveyed road, Pincher Creek to the mountains in sections 25, 36 township 5 range I west of the fifth meridian, to bridge site over

Pincher Creek in N.W. 4 section 25 township 5 range I west of the fifth meridian. Road diversion in sections 17, 18 and 7, all in township 4 range 28 west of the fourth meridian, connecting at the west end with surveyed road to bridge across Drywood river in N.E. 4 section 12 township 4 range 29 west of the fourth meridian, made to avoid Drywood river and its cut banks.

Road diversion from surveyed trail in N.W. 4 section 31 township 2 range 25 west of the fourth meridian and N.E. 4 section 36 township 2 range 26 west of the fourth meridian, to connect with bridge over Lee's creek in N.E. 4 section 36 township 2 range 26 west of the fourth meridian.

Road diversion in N.W. 4 section 24 township 2 range 26 west of the fourth meridian to give outlet to Messrs Barnes and White.

Road diversion in sections 5, 6 township 1 range 25 west of the fourth meridian to obtain better grade on hill.

## RE-SURVEYS.

Re-survey to obtain better grades of surveyed road leading to bridge over Middle Fork of Old Man river in N.E. 4 section 21 township 7 range 1 west of the fifth meridian.

Re-survey to obtain better grades of surveyed road through sections 4, 5, 8 all in township 8 range 2 west of the fifth meridian near Gillingham.

#### DRAINAGE Surveys,

Survey of government drain in s.w. 4 section 4 township 4 range 29 west of the fourth meridian and N. W. 4 section 33 township 3 range 29 west of the fourth meridian, to drain marshy portion of road allowances used in connection with main road between Pincher Creek and the Oil fields.

### BRIDGE and Ferry sites.

Location of ferry site near ford across Old Man river at its junction with Pincher creek in s.E. 4 section 16 township 7 range 29 west of the fourth meridian. Location of bridge site on Pincher creek in N.W. 4 section 25 township 5 range

1 west of the fifth meridian.

Location of bridge site on Pincher creek in N.E. 4 section 13 township 5 range

1 west of the fifth meridian.

Location of bridge site on Mill creek near north-east corner section 12 township 6 range 2 west of the fifth meridian.

## IRRIGATION Inspections.

Inspection of irrigation scheme of W. R. Vanglin of Taylorville sections 3, 4 and 9 all in township I range 24 west of the fourth meridian.

Inspection of irrigation scheme of John N. West of Mountain View sections 3 and 4 township 2 range 28 west of the fourth meridian.

#### EXAMINATIONS and Reports.

Examination and report re ahandonment of certain portions of surveyed roads in sections 26 and 35 township 5 range 1 west of the fifth meridian and section 2 township 6 range 1 west of the fifth meridian, also survey of connection between two of the above named roads in 8.E. \( \frac{1}{4} \) section 25 township 5 range 1 west of the fifth meridian.

Examination of road diversion near Bellevue in section 28 township 7 range 3 west of the fifth meridian, as laid out by J. E. Woods, D.L.S.

Examination and report on proposed road from Blairmore to Lille collieries around west side of Bluff mountain.

Examination and report on proposed road between east and west halves of sections 3 and 10 township 4 range 29 west of the fourth meridian.

Examination and report on surveyed road through N.W. 1 section 13 township 2 range 27 west of the fourth meridian.

Report on proposed acquisition by the department of road between Frank

and Lille collieries.

Examination and report on proposed road across the slide at Frank in lieu of

road which is at present covered with debris.

Report on proposed road between Bellevue and East Slide siding in N.E. 1 section 20 township 7 range 3 west of the fifth meridian.

Plans and field notes for the above surveys are now in the course of preparation. Your obedient servant.

A. W. Ponton. District Engineer and Surveyor.

## West Assimilate Public Works District

MEDICINE HAT, December 31st, 1904.

John Stocks, Esq.,

Deputy Commissioner of Public Works.

Regina, Assa.

SIR,—I have the honour to submit the following report on the work done in the district of West Assiniboia during the past season.

The early part of the year was occupied in preparing returns of surveys made during 1903. These being completed I organised my party and commenced field work on the 20th of May.

I began work in the western part of my district working gradually eastwards during the first part of the season and then westward again,

finishing the season in the vicinity of Medicinc Hat.

As in 1902 the greater part of the season's work consisted in the survey of old trails of condsiderable length or of roads to take the place of the old trails where changes therein seemed advisable. dition to this a number of road allowances were examined and also old surveyed trails and the necessity for surveys reported on; bridge sites were located and diversions made to road allowances and surveyed trails.

A detailed report was sent in to your department on the completion

of each piece of work.

The weather was exceptionally good during the greater part of the season and very little time was lost, a few days in June owing to rain and a few days in September through snow.

Field work was completed on November 30th, no surveys being left

outstanding.

During the month of December I have been occupied preparing returns of the season's work, and one survey for which instructions were received after my party was disbanded, was examined and reported on.

I give below a list of surveys made and other work done.

## LIST OF SURVEYS.

Diversion from surveyed trail from Medicine Hat to Dunmore in section 28 township 12 range 5 west of the fourth meridian.

Diversion from surveyed trail from Maple Creek to the Gap in sections 21 and 29 township 29 range 26 west of the third meridian.

Diversion from road allowance section 8 township 10 range 25 west of the third meridian.

Diversion from road allowance section 22 township 12 range 8 west of the

fourth meridian.

Diversion from surveyed trail from Medicine Hat to Josephburg section 9 township 12 range 5 west of the fourth meridian.

Snrvey of old trail from Medicine Hat to Seven Persons tank.

Survey of old trail from Medicine Hat to Eagle Butte, from section 21 township 11 range 5 west of the fourth meridian, to section 30 township 8 range 4 west of the fourth meridian.

Survey of continuation of trail from Maple Creek to the Gap, from section 26 township 8 range 26 west of the third meridian, to section 25 township 7 range

26 west of the third meridian

Survey of old trail from Maple Creek to east end from section 19 township 10 range 24 west of the third meridian through township 9 range 24 west of the third meridian, township 9 range 23 west of the third meridian, township 8 range 23 west of the third meridian, township 7 range 23 west of the third meridian, township 7 range 22 west of the third meridian and township 7 range 21 west of the third meridian to section 31 township 6 range 21 west of the third meridian.

Survey of old trail south from section 33 township 9 range 27 west of the

Survey of old trail solutions section as township 3 range 27 west of the third meridian to section 6 township 8 range 27 west of the third meridian.

Survey of old trail south from section 15 township 12 range 6 west of the fourth meridian to section 2 township 12 range 6 west of the fourth meridian.

Survey of road across sections 20 and 29 township 11 range 26 west of the

third meridian to give access to bridge over Gap creek.

Snrvey of road east from Maple creek from section 8 township 11 range 24 west of the third meridian to section 12 township 11 range 21 west of the third meridian.

Survey of road north-west from Medicine Hat from section 34 township 12 range 5 west of the fourth meridian to section 15 township 13 range 5 west of

the fourth meridian.

#### Examinations.

Examination of road allowance north of section 31 township 12 range 5 west of the fourth meridian.

Report on proposed road through section 4 township 13 range 5 west of the

fourth meridian.

Examination and report on proposed road in N.E. † section 30 township 12 range 5 west of the fourth meridian.

Examination and report on proposed road in section 18 township 10 range 5

west of the fourth meridian.

Examination and report on proposed change in road from Medicine Hat to cemetery section 31 township 12 range 5 west of the fourth meridian. Examination and report on proposed change in trail from Irvine to Josephs-

burg in section 31 township 11 range 2 west of the fourth meridian.

Examination and report re proposed road in section 27 township 13 range 26 west of the third meridian.

Examination and report on road allowance east of section 28 township 11

range 26 west of the third meridian.

Examination and report on bridge site at Irvine and road to give access thereto section 36 township 11 range 3 west of the fourth meridian.

Examination and report on part of old Fort Walsh trail in section 2 township 8 range 29 west of third meridian and section 35 township 7 range 29 west of the third meridian.

Examination and report on part of surveyed trail in section 36 township 12 range 6 west of the fourth meridian.

Examination and report on proposed road across section 34 township 9 range

25 west of the third meridian.

Examination and report on old trail from Medicine Hat to Josephsburg from section 29 township 12 range 5 west of the fourth meridian to section 30 township ll range 4 west of the fourth meridian.

Examination and report on trails from Moose Jaw to Willow Bunch and

Wood Mountain.

Cross sections for bridges were taken wherever streams were crossed in the course of surveys.

Your obedient servant,

L. C. Charlesworth, District Engineer and Surveyor.

Public Works District of Centre Assiniboia.

REGINA, December 31st, 1904.

John Stocks, Esq.,

Deputy Commissioner of Public Works,

Regina, N.W.T.

Sir,—I have the honour to submit the following report of the work performed by this office in the public works district of Centre Assiniboia and on government drain No. 60, near the city of Prince Albert and No. 141 near the town of Duck Lake, during the season 1904.

I was appointed district surveyor and engineer by Order-in-Council

dated the 16th of May last.

During the months of May, June, July, August and September my time was mostly devoted to government drainage works. The balance of the season I was engaged on surveys of new roads, road diversions, etc., in the district of Centre Assiniboia and owing to the fine weather was enabled to continue field work up to the 23rd of December.

As detailed reports of all surveys and inspections performed have been given, a general summary in the order of instructions received will be found attached in schedule form. The work is divided into six classes, viz., drains, cross sections for bridges, new roads, road diversions, changes in surveyed roads and dams.

> Your obedient servant, T. H. Wiggins,

District Surveyor and Engineer.

#### DRAINS.

Government drain No. 96 for the drainage of the large marshes lying to the north and east of Yellowgrass.

Government drain No. 141 for lowering the waters of Duck Lake by a drain

through the Kamasis or Beardy Indian reserve to improve roads and lands.
Government drain No. 60 for improving MacFarlane or Red Deer creek by dredging or ditching through township 48 ranges 25, 26, 27 and 28 west of the second meridian.

A series of levels for proposed drain to drain a slough on the road allowance north of sections 33 and 34 township 17 and east of section 33 township 17 and section 4 township 18 range 27 west of the second meridian and lands adjoining.

## Cross Sections for Bridges.

Across Long creek east of section 10 township 9 range 15 west of the second meridian.

Across Long creek north of section 20 township 8 range 14 west of the second meridian.

Across Wascana creek north of section 19 township 16 range 18 west of the second meridian.

Across branch of Wascana creek east of section 31 township 16 range 18 west of the second meridian.

Across Wascana creek in section 36 township 17 range 21 west of the second meridian.

Across Moose Jaw creek in section 29 township 16 range 26 west of the second meridian.

Across Moose Jaw creek in section 31 township 18 range 24 west of the second meridian.

Across Moose Jaw creek in s.E. 4 section 9 township 16 range 26 west of the second meridian.

Across gully east of the village of Drinkwater in N.E. 1 section 29 township 15 range 23 west of the second meridian.

Across Beaver creek on road allowance north of section 31 township 30 range 4 west of the third meridian.

Across coulee north of section 21 township 17 range 26 west of the second meridian.

Across Rough Bark creek north of section 36 township 9 range 18 west of the second meridian.

Across Moose Jaw creek in section 29 township 16 range 26 west of the second meridian.

Road across Black Strap coulee through section 31 township 32 range 3 west of the third meridian, section 6 township 33 range 3 west of the third meridian and section 36 township 32 range 4 west of the third meridian.

Road through sections 36 and 31 township 30 range 4 west of the third

meridian and sections 5 and 6 township 31 range 4 west of the third meridian.

Road through sections 26 and 35 township 13 range 22 west of the second

meridian to bridge site over Moose Jaw creek.

Road across the Qu'Appelle valley through sections 30, 31 and 32 township 18 range 24 west of the second meridian and sections 4, 10, 14, 15 and 23 township 19 range 24 west of the second meridian.

Road through east 1 section 18 township 9 range 16 west of the second meri-

dian to cross Yellowgrass marsh.

Road through section 35 township 18 range 25 west of the second meridian, section 6 township 19 range 24 west of the second meridian and section 1 township 19 range 25 west of the second meridian, across the Qn'Appelle valley.

Road east and west of the village of Drinkwater through the N.E. \(\frac{1}{2}\) section 29 and the s.w. \(\frac{1}{2}\) section 32 township 15 range 23 west of the second meridian.

Road through sections 28, 29 and 33 township 19 range 21 west of the second meridian.

Road through section 5 township 10 range 17 west of the second meridian.

#### ROAD Diversions.

Diversion in 8.W. 4 section 13 township 20 range 21 west of the second meridian.

Diversion to bridge site in s.E. † section 9 township 16 range 26 west of the second meridian.

Diversion to avoid crossing Moose Jaw creek in N.W. 4 section 10 township 16 range 26 west of the second meridian.

Diversion in section 29 township 18 range 21 west of the second meridian. Diversion in east  $\frac{1}{2}$  section 36 township 17 range 21 west of the second meridian.

Diversion in N.E. 1 section 36 township 9 range 18 west of the second meridian.

Diversion in section 19 township 16 range 18 west of the second meridian.

Diversion in section 19 township 14 range 22 west of the second meridian.

Diversion in section 29 township 14 range 22 west of the second meridian.

Diversion in section 35 township 11 range 19 west of the second meridian. Diversion in section 29 township 16 range 26 west of the second meridian.

Diversion in section 11 township 18 range 21 west of the second meridian to bridge site.

## CHANGES in Surveyed Road.

Road through south ½ section 9 township 33 range 4 west of the third nieridian.

Road through section 20 township 8 range 14 west of the second meridian.

Road through s.w. 1 section 18 township 20 range 20 west of the second meridian.

Road in section 6 township 17 range 25 west of the second meridian and section 1 township 17 range 26 west of the second meridian.

Road in section 33 township 19 range 21 west of the second meridian,

(inspection and report no change advisable).

#### DAMS.

Report and sketch plan of dam in s.c. 4 section 11 township 15 range 26 west of the second meridian and lands affected in reference to road thereto.

Cross sections and report of proposed dam at the outlet of Long lake for relief of hay meadows in valley below.

In addition to the foregoing I have examined and reported upon the improvement of the road allowances across the alkali beds north and east of Caron station, and have furnished the department with several profiles of roads where heavy grades are met with in reference to their improvement. I also made report of a suitable place for crossing of the Q.L.L. & S.R. & S. Co. at Hanley.

## Qu'Appellle Public Works District.

South Qu'Appelle, December 31st, 1904.

JOHN STOCKS, Esq.,

Deputy Commissioner of Public Works,

Regina, Assa.

SIR,—I beg to submit the following report on surveys and inspections made in Qu'Appelle Public Works District during the past season.

The heavy snowfall of last winter resulted in unusually high water when spring opened, the Qu'Appelle lakes and river reaching a higher level than at any previous time within the recollection of the oldest settler. In consequence of this many bridges were seriously damaged.

High water prevailed generally throughout the district and a large number of diversion surveys, to avoid ponds and sloughs on the road allowances were rendered necessary in order to provide roads which would be available at all seasons: before making these surveys examinations were generally made to ascertain the feasibility of drainage but in many cases it was found that the cost of such work would be altogether out of proportion to the cost of the land required for right of way to avoid these obstructions and where usually a high and dry roadway could be constructed at small expense. The appended schedules give the location of the various surveys and other particulars relating to them.

#### DRAINAGE.

The schedule under this heading gives locations of the drains laid cut for construction with other particulars also a list of examinations made to determine

the feasibility of drainage in certain cases.

The most important drain staked out and constructed during the past season is one connecting Leech lake with the Little White Sand river in township 24

range 4 west of the second meridian.

The total length of excavation one mile, bottom width six feet and side slope 1½ to 1. The excavation was completed to Leech lake in November last when the water commenced flowing out. The lake being very shallow it is necessary to extend the excavation into its bed for some distance in order to obtain a depth of 2½ feet of water, which is the estimated reduction in level that will be effected by the construction of this drain.

The work of excavating in the lake bed was found rather difficult hut by the use of rubber boots the men were able to extend the excavation until a depth of 18 inches of water was reached and after the ice had set it was intended to com-

plete the work.

Leech lake is connected with Crescent lake to the south and Ronsays lake to the north, the latter being also connected with Pebble lake hy means of a drain

laid out by me in 1899.

The water in all these lakes appears to stand at the same level at the present time, there being no perceptible current in the connecting channels so that in the course of a year or two the drain which is now in operation should effect a general lowering of the water level about  $2\frac{1}{2}$  feet and thereby reclaim a vast area of fine hay meadow which for several years has been flooded.

It may be mentioned that a few years ago all these lakes were nearly dry and to bring water into them a drain was laid out and constructed under the supervision of Mr. Child, C.E., in 1898, to divert water from Insinger creek to Rousays lake from that source, but owing to the unusually wet seasons of recent years more water had been brought down than is required and with your permission I have had this water shut off for the present by the construction of a small earth dam, so that all the water from Insinger creek will now follow its old channel.

#### SCHEDULE of New Roads Surveyed.

Along division line between east and west halves of sections 2 and 11 town-

ship 19a range 10 west of the second meridian. In sections 22, 27 and 28 township 18 range 9 west of the second meridian being right of way for graded road on north side of Qu'Appelle valley known as McLean

Along south side of C.P.R. between Grenfell and Summerberry in sections 7.

12, 10 and 11 township 17 ranges 7 and 8 west of the second meridian.

Along centre line between east and west halves of section 3 township 16 range 7 west of the second meridian leading to Skilliter's crossing of Pipestone creek.

Along north boundary of sections 17 and 18 township 16 range 6 west of the

second meridian leading towards Grenfell.
In sections 16 and 21 township 28 range 4 west of the second meridian leading

to bridge site on Little White Sand river.

In sections 6, 7 and 8 township 19a range 10 and in s.w. ‡ section 4 township 19 range 10 west of the second meridian right of way for graded road known as Campbell hill on north side of Qu'Appelle valley.

In s.E. 4 section 26 township 20 range 11 west of the second meridian leading

to Abernethy.

In sections 19 and 30 township 22 range 14 west of the second meridian being

across the valley of Jumping creek.

Along north side of sections 16 and 17 township 16 range 7 west of the second meridian leading from Skilliter's crossing to Grenfell.

In s.e. 4 section 26 township 26 range 5 west of the second meridian along north side of right of way of Manitoba and N.W. railway leading to Orcadia.

In section 14 township 28 range 16 west of the second meridian being right of way for graded road leading to Kutawa.

In section 31 township 12 range 11 west of the second meridian along south

limit leading to Tiran.

Along east limit of west ½ of section 10 township 11 range 11 leading to Filmore. From Proctor's bridge to White Sand river between sections 1 and 2 township 25 range 5 west of the second meridian to east limit of section 13 township 25 range 5 west of the second meridian connecting with ford on White Sand river in section 17 township 28 range 4 west of the second meridian.

### SCHEDULE of Road Allowance Diversions.

From Qu'Appelle and Wood Mountain trail in sections 28 and 33 township 17 range 15 west of the second meridian and in sections 7 and 17 township 18 range 14 west of the second meridian to avoid ponds and sloughs.

In section 22 township 16 range 16 west of the second meridian right of way

across dam near Ezra Shaw's.
In section 33 township 17 aange 16 west of the second meridian to avoid marsh on road allowance to north.

In sections 28 and 33 township 17 range 16 west of the second meridian to

avoid ponds on road allowance to east of sections 29 and 32. In sections 4 and 5 township 18 range 16 west of the second meridian to avoid

marshes on road allowance between these sections. In section 6 township 18 range 16 west of the second meridian to avoid pond

on road allowance to east of section 1 range 17.

In section 31 township 17 range 16 west of the second meridian to avoid

marsh on road allowance to the north. In section 21 township 17 range 16 west of the second meridian to avoid marsh

on road allowance to the north.

In section 24 township 19 range 16 west of the second meridian right of way for graded road to avoid marsh.

In section 10 township 20 range 16 west of the second meridian to avoid marsh

on road allowance to east. In section 7 township 16 range 14 west of the second meridian and in sections 12, 19 and 25 township 16 range 15 west of the second meridian to avoid ponds and marshes on road allowances between ranges 14 and 15.

In section 2 township 18 range 14 west of the second meridian and section 35 township 17 range 14 west of the second meridian to avoid ponds on road allowances between these sections.

In section 7 township 18 range 14 west of the second meridian to avoid

marshes on road allowances to the east.

In section 19 township 19 range 14 west of the second meridian to avoid creek on road allowance to east of section 24 range 15.

In west 4 section 9 township 19a range 10 west of the second meridian to avoid pond on road allowance to north.

In section 1 township 19 range 10 west of the second meridian to avoid lake on road allowance to east of section 2.

In section 24 township 20 range 12 west of the second meridian to avoid marsh on road allowance to east.

In section 5 township 20 range 10 west of the second meridian to avoid marsh road allowance to north of section 32 township 19.

In section 15 township 18 range 9 west of the second meridian leading to bridge over Qu'Appelle river at Pipher's.

In section 33 township 20 range 9 west of the second meridian to avoid ravine on road allowance to east of section 32

ln s.E. ] section 5 township 21 range 9 west of the second meridian to provide suitable crossing of valley of Pheasant creek.

In s.E. 4 section 21 township 20 range 8 west of the second meridian to avoid pend on road allowance to east.

In section 9 township 20 range 8 west of the second meridian to avoid pond and marsh on road allowance to north.

In sections 13 and 14 township 20 range 8 west of the second meridian to avoid a marsh on road allowance between these sections.

In sections 2, 11, 15, 22 and 26 township 20 range 8 west of the second meridian

to avoid ponds and marshes on road leading to Neudorf.
In section 4 township 20 range 8 west of the second meridian to avoid pond road allowance to north.

In section 3 township 20 range 8 west of the second meridian to avoid pond on road allowance to north.

In N.E. 4 section 3 and s.W. 4 section 10 township 20 range 8 west of the second meridian to avoid ponds and marshes on road allowance hetween these sections.

In sections 14, 15 and 23 township 19 range 8 west of the second meridian to avoid ponds and marshes on road allowance between sections 14 and 15 and east of 22.

In sections 14 and 23 township 17 range 8 west of the second meridian to avoid hay marsh on road allowance to east of sections 22 and 15.

In section 36 township 14 range 8 west of the second meridian to avoid

marshes on road allowances to north and east.

In section 24 township 16 range 7 west of the second meridian to avoid marsh on road allowance to east.

In section 15 township 16 range 7 west of the second meridian to avoid marsh on road allowance to east of section 16.

In section 27 township 16 range 7 west of the second meridian to avoid marsh road allowance to north of section 22.

In N.E. 4 section 20 township 16 range 7 west of the second meridian to avoid pond on road allowance to the east.

In sections 5, 6, 7, 18 and 19 township 5 range 7 west of the second meridian to avoid ponds and marshes on road leading to Grenfell.

In sections 19 and 31 township 14 range 7 west of the second meridian to avoid marshes on road allowances to east of sections 24 and 36 township 14 range 8 west of the second meridian.

In section 5 township 17 range 16 west of the second meridian to avoid marsh on road allowance to north of section 32 township 16 range 16 west of the second meridian.

In section 30 township 16 range 6 west of the second meridian to avoid marsh on road allowance to east of section 25 township 16 range 7 west of the second meridian.

In section 31 township 16 range 6 west of the second meridian to avoid pond on road allowance to north.

In sections 15, 21, 22 and 27 township 16 range 6 west of the second meridian to avoid lake and pond on road leading to Oakshela.

In sections 34 and 36 township 25 range 6 west of the second meridian to

avoid marshes on road allowance to north.

In s.E. 4 section 4 township 26 range 5 west of the second meridian to avoid marsh on road allowance to north of section 33 township 25 range 5 west of the second meridian.

In section 23 township 16 range 5 west of the second meridian to avoid muskeg on road allowance to north.

In section 15 township 16 range 5 west of the second meridian to avoid marsh

on road allowance to east of section 16.

In section 27 township 25 range 4 west of the second meridian to avoid marsh on road allowance to north.

In sections 28 and 29 township 25 range 4 west of the second meridian to avoid

marshes on road allowance between these sections.

In section 33 township 25 range 4 west of the second meridian to avoid pond on road allowance to north of section 28.

## SCHEDULE of Re-surveys.

In west  $\frac{1}{2}$  section 8 township 19 range 7 west of the second meridian to change location of valley road at Johann Armbruster's.

In section 32 township 15 range 7 west of the second meridian to secure right

way for road as graded.

In N.E. † section 24 township 15 range 6 west of the second meridian to re-mark survey of road leading to bridge over Pipestone creek at John Taylor's

In section 25 township 19 range 7 west of the second meridian in Qu'Appelle

valley at Simpkinson's.

In N.E. } section 8 township 17 range 7 west of the second meridian for right of way to Grenfell dam.

## Schedule of Reports on Examinations of Roads.

Regarding change of location of Qu'Appelle valley road at Johann Armbruster's.

Regarding surveyed road in s.w. | section 17 township 16 range 7 west of the

second meridian.

Regarding proposed survey of Fort Pelly-Qn'Appelle trail.
Regarding proposed survey to connect Yorkton-Touchwood road on north boundary of section 23 township 25 range 6 west of the second meridian.
Regarding proposed survey from Yorkton-Touchwood road north of section

31 township 25 range 5 west of the second meridian to Insinger creek.

Regarding surved road in section 11 township 26 range 4 west of the second

meridian.

Regarding proposed change of location of surveyed road in N.E. 1 section 16 township 25 range 4 west of the second meridian. An examination for bridge site over Qu'Appelle river at Fort Qu'Appelle with cross section of channel. Regarding survey of diversion across C.P.R. track at McLean station in

township 18 range 14 west of the second meridian.

## SCHEDULES of Drains laid ont, etc.

Location and right-of-way survey for drain in section 23 township 16 range 5 west of the second meridian to drain muskeg in section 26 into Weed lake so as to permit construction of road in section 23.

Location drain in section 9 township 17 range 10 west of the second meridian

to permit construction of road on road allowance to north of section 4.

Location of drain in section 2 township 20 range 8 west of the second meri-

dian to permit construction of road allowance to east of section 3.

Location and right of way survey for drain in sections 23 and 26 township 24 range 4 west of the second meridian for drainage of Leech lake into the Little White Sand river.

Examination and report on proposed drainage in section 26 township 20

range II west of the second meridian.

Examination and report on proposed drainage in section 24 township 20 range 12 west of the second meridian.

#### SCHEDULE of Reservoirs surveyed.

Grenfell reservoir in N.E. 1 section 8 township 17 range 7 west of the second meridian.

In s.w. † section 11 township 19 range 11 west of the second meridian. In north b section 29 township 19 range 14 west of the second meridian. In consequence of recent railway extensions through the district the outlying portions are becoming rapidly settled and to provide satisfactory roads a large number of diversion and drainage surveys will be required, particulars as to more important of these will be sent you at an early date.

Your obedient scrvant, Wm. T. Thompson, District Engineer and Surveyor.

Public Works District of East Assiniboia.

Moosomin, December 31st, 1904.

JOHN STOCKS, Esq.,

Deputy Commissioner of Public Works,

Regina, N.W.T.

Sir,—I beg to submit the following report of work completed in the Public Works District of East Assinibola during the season of 1904.

My appointment to the surveys branch was made the 1st of April of this year, and during that month I was in the department at Regina. Owing to the late spring and poor roads it was the middle of June before my party took the field, but from that time until the middle of November only a few days were lost on account of rain. My time has been taken up with diversions around sloughs, crossings of valleys, draining examinations and assisting the councillors wherever help was needed.

All surveys that were important with the exception of three have been completed and reported, though there are quite a number still on hand. The surveys required for this district were very much behind as my list included some from 1902 and 1903 besides the current work for 1904. I have not had time this season to go thoroughly into the bridges as my time was taken up more particularly with surveys, though next season I shall devote more time to that part of my work.

New Roads and Diversions surveyed during 1904.

Section 34 township I range 6 west of the second meridian new road to allow access to bridge over Souris river.

S.w. ‡ section 15 township 3 range 1 west of the second meridian diversion around head of ravine.

N.E. 4 section 33 township 7 range 1 west of the second meridian new road, road allowance very wet.

road allowance very wet.
Sections 9 and 10 township 9 range 1 west of of the second meridian diversion

to avoid sloughs on road allowance.

Sections 35 and 2 townships 10 and 11 range 1 west of the second meridian diversion to avoid sloughs on road allowance.

Sections 25 and 36 township 10 range 2 west new road to open a road from High View to Manor

High View to Manor.
West ½ section 27 township 11 range 30 west new road to allow crossing of Pipestone creek.

Sections 28 and 33 township 11 range 31 west diversion to avoid sloughs on road allowance.

Sections 24 and 13 township 11 range 3 west of the second meridian diversion to avoid sloughs on road allowance.

Sections 5 and 8 township 13 range 31 west diversion to avoid sloughs on road

Sections 5 and 8 township 13 range 31 west diversion to avoid sloughs on road allowance.

Sections 9 and 16 township 13 range 31 west diversion to avoid sloughs on road allowance.

Sections 21 and 28 township 13 range 31 west diversion to avoid slough on road allowance,

S.E. 4 section 12 township 13 range 30 west diversion to avoid sloughs on road allowance.

Sections 14, 15, 22 and 23 township 13 range 1 west of the second meridian di-

version to afford crossing of creek.

N.w. 4 section 4 township 14 range 1 west of the second meridian diversion to allow access to bridge on Pipestone.

Section 33 township 14 range 3 west of the second meridian new road to allow

access to road to Whitewood.

Section 3 township 15 range 3 west of the second meridian new road to allow access to bridge over Pipestone. Sections 4 and 9 township 15 range 4 west of the second meridian, new road,

road allowance in muskeg.

East 1 section 33 township 15 range 33 west diversion to avoid slough on road allowance. N.w. 1 section 10 township 16 range 33 west diversion to avoid slough on road

allowance, North ½ section 19 township 17 range 1 west of the second meridian diversion

to avoid slough on road allowance. S.w. 4 section 14 township 17 range 2 west of the second meridian diversion to avoid slough on road allowance.

Sections 16 and 17 township 17 range 2 west of the second meridian diversion

to allow crossing of Squaw Head creek. Section 7 township 18 range 2 west of the second meridian new road to allow

crossing of Qu'Appelle river.

N.w. ‡ section 20 township 18 range 4 west of the second meridian diversion to

allow access to Cotham bridge.

Sections 9 and 16 township 18 range 32 west new road crossing Qu'Appelle vallev.

Sections 34 and 27 township 18 range 33 west diversion crossing of Little Cut Arm at Hazelcliffe.

In sections 3 and 4 township 19 and section 9 township 19a range 3 west of the second meridian diversion to afford a feasible crossing of creek.

N.E. 1 sections 4 and 9 township 19 range 2 west of the second meridian diver-

sion to avoid sloughs on road allowance. N.w. 1 section 16 township 19 range 1 west of the second meridian diversion to avoid sloughs on road allowance.

Between N.W. 1 and S.W. 1 section 28 township 19 range 1 west of the second meridian new road to afford access to town of Esterhazy.

In sections 25, 26, 35 and 36 township 19 range 32 west new road crossing of Big Cut Arm creek.

In sections 25 and 24 township 21 range I west of the second meridian new road crossing of the Big Cut Arm creek at Kinbrae

In north  $\frac{1}{2}$  section 1 township 23 range 2 west of the second meridian diversion to avoid slough on road allowance.

N.w. 4 section 17 township 23 range 1 west of the second meridian diversion to

give better crossing of slough on road allowance.

West ½ section 24 township 24 range 2 west of the second meridian diversion

to avoid slough on road allowance. In east & section 24 township 25 range 2 west of the second meridian diversion

to avoid slough on road allowance.

In N.E. 4 section 9 township 9 range 1 west of the second meridian diversion to avoid slough on road allowance.

In s.w. 4 section 29 township 17 range 2 west of the second meridian diversion to avoid slough on road allowance.

#### EXAMINATIONS.

In north ½ section 2 township 23 range 1 west of the second meridian examination to find possibility of straightening road.

On north boundary section 8 township 14 range 3 west of the second meridian

examination and report.

In s.w. ½ section 16 township 10 range 1 west of the second meridian examination and report.

In section 13 township 30 range 3 west examination and report.

In east boundary section 23 township 1 range 18 west of the second meridian examination and report.

In N.W. 1 section 9 township 18 range 32 west examination and report creamery site.

Drains Surveyed during Season of 1904.

In s.E. 4 section 16 township 9 range 1 west of the second meridian to drain slough on road allowance,

In s. E. 1 section 9 towrship 9 range 1 west of the second meridian to drain slough on road allowance.

In N.E. 1 section 9 township 12 range 1 west of second meridian to drain

slough on road allowance government drain No. 190. N.w. ‡ section 26 township 12 range 1 west of the second meridian to drain slough on road allowance government drain No. 189.

In s.w. ‡ section 27 township 13 range 2 west of the second meridian to drain

slough on road allowance. In north 4 section 20 township 13 range 31 west to drain slough on road allowance and adjoining sections.

In sections 4 and 32 townships 13 and 12 range 21 west to drain slough on road

allowance and adjoining sections.

In N.E. 4 section 6 and N.W. 4 section 5 township 19 range 1 west of the second meridian to drain lake on road allowance.

In N.W. ‡ section 8 township 22 range 32 west to drain slough on road allowance.

In s.w. 4 section 19 township 24 range 1 west of the second meridian to drain slough on road allowance.

#### EXAMINATIONS and Levels Run.

In section 10 township 10 range 1 west of the second meridian levels given to councillor re drainage of sloughs on road allowance.

In s.w. \( \frac{1}{4}\) section 28 township 19 range 1 west of the second meridian examination of culvert under C.P.R. track and levels taken.

On north boundary section 1 township 23 range 2 west of the second meridian levels taken to show outlet of Saltcoats lake through culvert under C.P.R. track. In section 36 township 23 range 2 and section 19 township 23 range 1 west of the second meridian levels run for drainage of several sloughs along road allow-

Reservoirs Surveyed during Season 1904.

In section 35 township 13 range 31 west profile and plan of dam and sluiceway. In section 29 township 23 range 31 west survey of reservoir and ditch in connection.

In section 28 township 21 range 31 west examination and report.

#### Cross Sections.

In section 12 township 12 range 31 west cross section for lenghtening bridge. On N.W. 4 section 31 township 13 range 32 west cross section for new bridge. In section 10 township 18 range 33 west sketch plan for extension and raising.

In section 9 township 18 range 32 west cross section of Qu'Appelle river.

In section 20 township 18 range 4 west of the second meridian cross section of Qu'Appelle river.

In section 26 township 19 range 32 west cross section of Big Cut Arm creek. In section 27 township 18 range 33 west cross section of Little Cut Arm creek

Your obedient servant.

H. K. MOBERLY, District Engineer and Surveyor.

#### Saskatchewan Public Works District.

PRINCE ALBERT, December 31st, 1904.

JOHN STOCKS, Esq.,

ance.

District Commissioner of Public Works,

Regina, N.W.T.

SIR,—During the season I have performed all the surveys and investigations ordered except two, one of which came too late, and the other I had to report on before performing the survey. In addition to these I have made such other surveys and investigations as I found were required while on the ground, and going from one locality to another. On the whole the season has been very favourable, not much rain and less winds than usual.

The survey of part of the trail from Prince Albert towards Montreal lake, some 30 miles, was my largest work. Next in extent was retracing 10 miles of the trail from Saskatoon towards Battleford. New roads leading into Melfort required over seven miles of survey. These were urgently required, as the road allowances were singularly unsuitable. Most of the right of way will be given free of cost. The public for some years have been using these routes in anticipation of the survey. The survey to connect leading roads with Isbister's ferry, about six miles, assures an uninterrupted route from Prince Albert easterly to Coxby-Fort a La Corne, etc. About four miles of survey of roads at the town of Tisdale section 30 township 41 range 14 west of the second meridian, is for substitutes for road allowances, which were scarcely practicable. The right of way for nearly all of which will be given free. All of the foregoing are in the schedule annexed.

No engineering difficulties were encountered but the ever increasing difficulty of finding monuments of the original surveys and the growth of timber and scrub makes the survey work more arduous and slower

every year. Indeed there is but little of the true prairie left.

Several ditches were laid out. Plans, profiles, estimates, etc., were made and some reports sent in while on the route. On every hand I find more drainage being done than formerly. It is being recognised by the

people that it is a vital part of road making.

With the increased number of settlers, the statute labour of each year is doing much to improve the roads, more especially the worst places. The department has taken means to promptly repair small bad breaks where such are on leading roads. This is giving great satisfaction.

#### Ferries.

The unexpected and unprecedented sudden breaking up of the rivers with much higher water did some damage, as might be expected, to some of the ferries, notably the Ibister ferry and Adams ferry. These were reported on and so promptly repaired that there was scarcely any interruption of the public travel.

I am now working at the plans and field notes of my season's work. These will be completed in good time as per regulations. Reports will also be sent in during the winter on drains with profiles, estimates, etc.

When the Canadian Northern is completed to Battleford (it is about completed now to the North Saskatchewan river), new roads or improvements on road allowances to reach the new stations may be required. The same results will follow the completion of said railway from Melfort to Prince Albert (75 miles). The general effect of such railways cannot at present be fully anticipated.

All of which is respectfully submitted.

Your obedient servant,

CYRUS CARROLL, D.L.S., District Engineer and Surveyor.

Schedule of Surveys performed in District of Saskatchewan, 1904.

## ROAD Diversions.

On the east side of section 30 township 47 range 26 west of the second meridian, to avoid a slough and two crossings of McFarlane's creek.

On east side of section 21 township 47 range 27 west of the second meridian,

to avoid a slough,

On N.E. 4 section 19 and N.W. 4 section 20 township 42 range 5 west of the third meridian, to avoid a lake.

East of section 35 township 43 range 5 west of the third meridian and section 2 township 44 range 5 west of the third meridian, to avoid a slough.

On east side of sections 3 and 10 township 47 range 26 west of the second meridian, to avoid a slough.

On north side of section 22 township 42 range 3 west of the third meridian, to avoid sloughs.

On east side of section 19 township 36 range 6 west of the third meridian, to avoid a slough.

On east side of river lot No. 25, Prince Albert settlement, to avoid a slough.

#### NEW Roads.

On north side section 16 township 46 range 23 west of the second meridian,

to connect trail with road allowances

Through sections 16, 15, 14, 13 and 12 township 48 range 24 west of the second meridian and section 25 township 48 range 24a west of the second meridian, to

connect roads and Isbister's ferry.

Extension of road on east side of the Q. L. L. and S. R. and S. Co.'s Ry. with connection to streets in the town of Rosthern s.w. 1 section 35 township 42 range

3 west of the third meridian.

Between the north and south halves of section 30 township 44 range 14 west of the second meridian, between the N.E. and S.E. quarters section 25, also between N.E. and N.W. quarters section 25 and east and west halves section 36 township 44 range 15 west of the second meridian, to connect with townsite of Tisdale on section 1 township 45 range 15 west of the second meridian (right of way given).

Through sections 6 and 7 township 45 range 21 west of the second meridian,

to avoid a slough.

Along east side of railway section 33 township 36 range 5 west of the third meridian, to connect roads with the town of Saskatoon.

North side of sections 1, 2, 3 and 4 township 45 range 19 west of the second meridian, substituted for bad road allowances, also new road on north side of sections 5 and 4 and 6 township 45 range 18 west of the second meridian, substi-tuted for inconvenient road allowances and to avoid crossing of creek (right of way mostly given for the whole of this survey).

North \( \frac{1}{2} \) section 11 township 45 range 4 west of the third meridian, to connect trail from Duck lake with Carleton trail.

## OLD Trails.

From Prince Albert, towards Montreal lake, through townships 49, 50, 51 and 52 to the 14th base line, total distance about 30 miles.

From Saskatoon towards Battleford; this was retracing old surveyed trail, 10 miles.

### INVESTIGATIONS.

Investigation and retracing east side of section 13 township 49 range 24 west of the second meridian, diversion not recommended.

Investigation and retracing road allowance on east side section 33 township 44 range 20 west of the second meridian, and as to surveying road through said section.

Investigation and retracing Carleton trail through section 21 township 47 range 27 west of the second meridian.

Investigation as to advisability of survey of a trail near the river north of

Saskatoon, not recommended.

Investigation as to need of a road surveyed in section 12 township 45 range 22 west of the second meridian, reported adversely.

Investigation as to making road on east side of river lot No. 25, Prince Albert settlement, estimate and report made.

#### DRAINS.

Drain No. 192 section 14 township 45 range 17 west of the second meridian, survey levels, profile and report, as to drainage of big slough on road allowances. Survey on section 24 township 48 range 25 west of the second meridian, outlet drain, levels, profile and report; drain made.

Levels, profile and report for drainage of big slough section 36 township 44 range 18 west of the second meridian, township boundary.

Levels, profile and estimate for drain section 16 township 45 range 21 west of the second meridian, to remove water from roads leading into Kinistino.

Survey, level, profiles, etc., drain section 23 township 49 range 23 west of the second meridian; drain is now made.

### ENGINEERING BRANCH.

Staff	Assistant chief engineer. I draughtsman. I clerk in charge of bridge records. I stenographer. I clerk and stenographer in charge of road improvement. I clerk and stenographer charge of fireguard records and ferries.
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During the season 247 bridges were constructed, 23 rebuilt and 94 repaired, making a total of 364 bridges dealt with, as against 207 in 1903 and 280 in 1902.

Owing to the severe spring floods in Eastern Assiniboia, several of the older structures were destroyed, thus necessitating the construction

of a great number of new bridges.

The office work of this branch shows that 63 plans, 81 contracts, and 360 bills of quantities were prepared and recorded. As stated in our 1903 report a series of standard bridge plans were prepared and they are still being maintained except in cases of larger structures requiring special designs. The increase in the work of this branch during the year will be clearly illustrated by the list of roads, bridges, fireguards, etc.

## Construction of Bridges.

Of the 364 brigdes dealt with during the season, 247 were new structures, as compared with 127 in 1903. These bridges were constructed according to designs prepared to meet the difficulties existing in different portions of the Territories. Concrete substructures where used have proved very satisfactory, and will undoubtedly as far as possible in future be substituted for timber. The expenditure in connection with the handling of bridges was \$330,615.73 compared with \$191.917.10, last year. An explanation regarding the increase is, that in addition to other bridges, this amount includes the expenditure incurred during the year on the Belly and Old Man river bridges, a sum of which amounting to \$84,235.92, has been reimbursed by the Dominion Government. The usual schedule of bridges constructed, reconstructed and repaired, together with a list of steel bridges is shown below.

SCHEDULE OF Bridges constructed, rebuilt and repaired.

Arm river, section 13 township 24 range 28w2. Grading approaches. Arm river, sections 10/15 township 23 range 27w2. Grading approaches. Arm river, section 23 township 24 range 28w2. Construction four 20 ft. spans on pile bents.

Arm river, sections 23/24 township 24 range 28w2. Grading hills leading to

bridge.

Arm river, sections 8/9 township 22 range 26w2. Construction three 20 ft. spans on piles.

Assiniboine river, sections 31/32 township 33 ranges 3/4w2. Construction

60 ft. wooden truss with one 20 ft. approach at each end.
Assimboine river, one mile south-west of Fort Pelly, repairs.

Antler creek, sections 5/6 township 3 range 32wl. Repairs, also one 18 ft. span on pile beuts 100 ft. south of main structure.

Amisk creek, sections 19/30 township 49 range 18w4. Grading and filling up approaches.

Bigstone river, section 2 township 47 range 24w4. Construction 44 ft. truss. Battle river section 33/34 township 44 range 23w4. Grading approaches. Borwick sloughs, section 32 township 56 range 16w4. Construction. Beaver creek, sections 4/33 township 55/56 range 19w4. Repairing approaches. Beaver creek, sections 12/13 township 55 range 19w4. Repairs.

Beaver creek, sections 12/13 township 55 range 19w4. Repairs. Beaver creek, sections 5/6 township 56 range 19w4. Repairs.

Beaver creek, sections 11/12 township 56 range 20w4. Construction of 40 ft. truss, 20 ft. span at each end.

Black Mud creek, sections 36/1 townships 50/51 range 24w4. Construction of pile trestle, three 20 ft. spans.

Black Mud creek, sections 7/18 township 50 range 24w4. Construction of 30 ft, truss with 20 ft, span at each end.

Boggy creek, sections 16/17 township 27 range 2w2. Construction of two 18 ft, spans on piles.

Boggy creek, sections 30/25 township 27 ranges 2/3w2. Boggy creek, sections 16/21 township 28 range 3w2. Repairs.

Repairs.

Beaver creek, sections 4/32 townships 30/31 ranges 4w3. Construction of a 16 ft, span on frame bents and sills.

Beaver creek, sections 6/31 township 30/31 range 4w3. Repairs, adding 20 ft.

span to each end and moving bridge

Beaver creek, sections 2/3 township 16 range 30wl. Construction two 20 ft. spans on pile bents.

Big river, township 52 range 8w3. Grading approaches. Burnt lake trail, sections 9/16 township 38 range 28w4. Construction of two 20 ft. spans.

Blindman river, sections 21/28 township 40 range 1w5. Reconstruction.

Branch Pipestone river, sections 29/32 township 47 range 24w4. Construction

three 20 ft spans on pile bents,
Blindman river, sections 19/30 township 42 range 2w5. Construction 60 ft.
steel Warren truss. 20 ft. pile approach to one end two 20 ft. spans at other end.
Battle river, sections 36/1 townships 44/45 range 23w4. Construction 80 ft. steel

truss with 20 ft. pile approach at each end.

Bennet's creek, sections 12/13 township 8 range 5w2. Removing bridge to this location, put in on same bent adding 16 ft. bent making length 32 ft.

Bow river, sections 34/35 township 25 range 4w5. Raising bridge 2 ft.

Bow river, Morley. Repairs.

Blackstrap coulce, section 6 township 33 range 3w3. Construction one 20 ft. span on piles.

Blackstrap coulee, section 36 township 32 range 4w3. Construction one 20 ft. span on piles.

Crooked creek, sections 1/2 township 30 range 4w5. Construction 20 ft. span on pile bents.

Coulee north of Morley, section 1 township 25 range 4w5. Reconstruction 20 ft, span on pile bents.

Cook's creek, sections 27/22 township 7 range 1w2. Construction 16 ft. pile

bent on sills. Cook's creek, sections 21/22 township 7 range 1w2. Repaired; 14 ft. span

added to each end. Crooked creek, sections 4/5 township 8 range 4w2. Construction three 20 ft.

spans pile bridge. Crooked creek, sections 9/16 township 8 range 4w2. Construction two 18 ft.

spans pile bridge. Creek, sections 28/33 township 2 range 26w4. Construction 20 ft. span pile

Greek, sections 2/35 townships 19/20 range 3w5. Reconstruction. Coulee, sections 23/14 township 20 range 1w5. Repaired, Greek, section 5 township 35 range 28w4. Construction 20 ft. pile span. Greek, section 8 township 35 range 28w4. Construction 20 ft. pile span. Greek, townships 32/33 range 27w4. Construction two 20 ft. pile spans.

Carrot river, sections 7/8 township 45 range 21w2. Grading approaches. Creek, sections 2/3 township 26 range 36w2. \$25.00 expended in repairs. Creek, sections 35/2 townships 45/46 range 21w2. Construction. To be graded L.I.D. in spring

Creek, sections 4/5 township 6 range 20w4. Construction of trestle bridge (4 bents).

Creek, sections 21/28 township 6 range 20w4. Construction of trestle bridge (4 bents).

Creek, section 14 township 9 range 28w3. Construction 20 ft. pile span.

Creek, sections 15/22 township 9 range 30w3. Construction three 14 ft. spans. Cypress trail, section 1 township 8 range 4w4. Repairs.

Creek, sections 2/3 township 27 range 29w2. Construction 20 ft. span on frame bents.

Creek, section 35 township 42 range 3w3. Construction 30 ft. truss on pile substructure.

Creek, sections 25/30 township 42 ranges 2/3w3. Construction one 20 ft. span on piles.

Creek, sections 19/30 township 42 range 2w3. Construction one 20 ft. span on piles.

Creek, sections 25/30 township 20 ranges 26/27w2. Repairs.

Creek, sections 2/34 townships 26/27 range 28w2. Construction of two 20 ft. pile spans.

Coulee, sections 14/15 township 17 range 28w2. Construction one 20 ft. pile span.

Coulee, one mile north of Davison. Construction of one 20 ft. pile span.

Creek, section 1 township 21 range 13w2. Repairs. Creek, section 10 township 19 range 12w2. Construction of 20 ft. span on piles. 16 ft. span at each end on piles.

Creek, sections 29/30 township 10 range 16w2. Construction of 20 ft. span on piles.

Creek, section 17 township 9 range 16w2. Construction of 20 ft. span on piles. Creek, sections 4/32 townships 10/11 range 16w2. Construction of 20 ft. span on piles.

Creek, section 20 township 51 range 24w4. Construction of 20 ft. span on piles. Creek, sections 29/30 township 54 range 13w4. Construction of two 20 ft. spans on piles.

Creek, sections 34/35 township 45 range 24w4. Construction of small bridge. Creek, sections 25/30 township 13 range 2w2. Construction two 20 ft. pile spans on pile bents.

Creek, sections 7/8 township 17 range 2w2. Construction one 20 ft. span.

Creek, sections 1/6 township 13 ranges 32/33w1. Grading approaches.

Coulee, section 21 township 47 range 24w4. Construction small bridge; additional grading required.

Creek, sections 13/14 township 12 range 4w2. Construction two 20 ft. spans on pile hents.

Creek, sections 7/8 township 17 range 2w2. Construction one 20 ft. span on pile bents.

Creek, sections 19/30 township 13 range 1w2. Construction one 20 ft. span on pile bents.

Creek, sections 12/13 township 14 range 4w2. Construction one 20 ft. span on pile bents.

Creek, south of section 5 township 12 range 1w2. Construction one 20 ft. span on pile bents

Creek, sections 25/26 township 17 range 9w2. Csnstruction one 16 ft. span on pile bents.

Creek, sections 9/10 township 30 range 9w2. Construction one 16 ft. span on frame bents.

Cussed creek, sections 34/3 townships 25/26 range 5w2. Repairs.

Cussed creek, sections 1/6 township 27 ranges 7/6w2. Construction 20 ft. span on piles.

Cussed creek, sections 25/30 township 27 ranges 4/5w2. Repairs. Coulee, section 36 township 32 range 4w5. Construction four 20 ft. spans on pile bents.

Creek, section 5 township 26 range 1w5. Construction 20 ft span on pile bents. Cottonwood creek, sections 1/36 townships 16/17 range 22w2. Construction two 20 ft. spans on pile bents.

Creek, sections 14/15 township 13 range 1w2. Construction two 20 ft. spans

on pile hents.

Cottonwood creek, sections 24/25 township 17 range 22w2. Construction three 20 ft, spans on pile bents.

Cussed creek, sections 11/12 township 27 range 6w2. Construction two 20 ft, spans on pile bents.

Cussed creek, section I townships 26/27 ranges 6/7w2. Repairs.

Cussed creek, sections 33/34 townships 26/27 ranges 5/2w2. Repairs.
Coulee (Bull Horn), sections 28/33 township 2 range 26w4. Construction one

20 ft. span on pile hents.

Creek, sections 4/9 township 46 range 21w4. Construction three spans, two of 16 ft each and one of 18 ft. all on pile bents.

Creek, sections 14/15 township 13 range 1w2. Construction two 20 ft. spans on nile bents.

Cut Arm creek, sections 24/25 township 21 range 2w2. Repairs.

Coulee, sections 31/5 townships 2/3 range 26w4. Construction one 20 ft. span on piles.

Cussed creek, sections 30/31 township 27 range 4w2. Repairs.

Crow's Nest river, N.w. 4 section 36 township 7 range 4w5. Construction 80 ft. steel truss, 20 ft. span at each end on pile bents.

Crow's Nest river, s.w. 4 section 36 township 7 range 4ws. Construction 80 ft. steel span, 20 ft. span at one end, two 20 ft. at other.

Crow's Nest river, N. w. 1 section 36 township 7 range 4w5. Construction 80 ft.

steel truss 20 ft. span at one end and two 20 ft. at other.

Dog Pound creek, section 14 township 31 range 3w5. Construction 50 ft. wooden truss, 2-20 ft. and 1-16 ft approach.

Dog Pound creek, section 2 township 29 range 4w5. Repairs. Drain No. 4, section 9 township 53 range 24w4. Grading.

Drain No. 4, sections 28/29 township 53 range 24w4. Construction one 16 ft. span on pile bents.

Drain No. 4, section 28 township 53 range 24w4. Construction one 16 ft. span

on pile bents.

Dry Wood river, section 17 township 4 range 29w4. Construction 50ft wooden truss with two 20 ft. approaches at one end and one at other.

Devil's creek, section 18 township 28 range 25w2. Construction one 20 ft. span pile hents.

Drain No. 56, sections 10/15 township 9 range 15w2. Construction three 20 ft.

spans on pile hents.

Drain No. 56, N.E. 4 section 10 township 19 range 15w2. Construction one 24 tt. span on pile hents.

Dried Meat creek, sections 15/16 township 45 range 19w4. Construction 30 ft.

wooden truss on pile substructures.

Drain No. 141, Carleton trail. Construction one 20 ft. span and spillway.

Dried Meat creek, sections 16/17 township 45 range 18w4. Repairs; grading

approaches. Dry Wood river, sections 17/18 township 4 range 28w4. Construction one 100

ft. steel span and two 20 ft. pile approaches at one end, one 20 foot at other. Duck creek, sections 7/12 township 33 ranges 10/11w2. Repairs.

Elbow river, sections 4/5 township 24 range 2w5. Construction two 80 ft. steel trusses with one 20 ft. pile approach at the south end and two 20 fts. at north end, and short distance further north structure of 60 ft. wooden truss with 20 ft. pile approach at one end, and four 20 ft. approaches at other end.

Eagle creek, sections 5/32 townships 34/35 range 10w3. Construction three 20 ft. spans on pile bents.

Egg lake, sections 27/28 township 56 range 25w4. Construction two 20 ft. spans on pile hents.

Eight Mile creek, sections 28/33 township 49 range 26w4. Construction three

20 ft. spans on pile hents.
Ebel lake, section 9 township 30 range 9w2. Construction three 20 ft. spans on pile bents.

Fulton's creek, sections 52/53 east side of R.L. 43. Repaired. Fulton's creek, sections 52/53 east side of R.L. 43. Construction two 16 ft. spans, on pile bents.

Goss creek, sections 26/27 township 24 range 4w5. Construction two 16 ft. spans on pile bents.

Goodridge creek, sections 34/35 township 52 range 25w4. Construction one 20 ft. span on pile hents.

Gap creek, section 32 township 9 range 27w3. Construction two 20 ft. spans on pile bents.

Horse lake creek, sections 22/27 township 29 range 11w2. Construction two 20 ft. spans on pile bents.

Hislop creek, sections 10/15 township 8 range 4w2. Construction two 20 ft.

spans on pile bents.

Haynes creek, sections 2/3 township 30 range 24w4. Construction two 20 ft. spans on frame bents.

Insinger creek, sections 26/27 township 28 range 7w2. Construction two 20 ft. spans on pile bents.

Jackfish creek, section 22 township 48 range 17w3. Construction eight 20 ft,

Jamieson coulee, section 15 township 38 range 27w4. Repairs to crossing and

cutting down hill.

Jones' creek, sections 4/32 townships 38/39 range 25w4. Construction 20 ft.

span on frame bents.

Judd Bray creek, sections 24/19 township 31 ranges 11/12w2. Construction two 20 ft. spans on pile bents.

Knee Hill creek, sections 6/31 townships 33/34 range 26w4. Construction 20 ft. span on pile bents.

Knee Hill creek, sections 5/32 townships 32-33 range 26w4. Construction 20 ft. span on pile bents.

Knee Hill creek, sections 32/5 townships 32/33 range 26w4. Construction 30 ft. wooden truss on pile bents.

Long creek, sections 7/18 township 2 range 12w2. Construction 20 ft. span on

Long creek, sections 20,21 township 8 range 14w2. Repairs to approaches. Lone Pine creek, sections 20/29 township 32 range 28w4. Construction two 20 ft. spans on pile bents.

Lee creek, in the village of Cardston. Construction 100 ft. truss.

Lee creek, section 31 township 2 range 25w4. Construction 50 ft. wooden truss, and four 20 ft. pile approaches.

Branch of Lee creek, section 33 township 2 range 26w4. Construction 20 ft. span on pile bents.

Lightning creek, sections 24/19 townships 7 ranges 31/32w1. Construction three 20 ft. spans on pile bents.

Lightning creek, sections 8/17 township 7 range 31wl. Construction three 20 ft. spans on pile bents.

Lone Pine creek, sections 5/32 townships 32/33 range 28w4. Repairs.

Long creek, sections 19/30 township 13 range 22w2. Construction one 20 ft. span on pile bents.

Lee creek, section 17 township 2 range 26w4. Construction one 16 ft, span on pile bents.

Little Bow river, sections 1/6 township 17 ranges 26/27w4. Construction three 20 ft. spans on pile bents. Little Cut Arm creek, sections 23/26 township 19 range 1w2. Grading

approaches.

Little Bow river, section 5 township 15 range 21w4. Construction 80 ft. steel span on pile substructure.

Little Cut Arm creek, sections 1/6 township 20 ranges 1/2w2. Construction

two 20 ft. spans on piles.

Little Cut Arm creek, sections 33/34 township 19 range 1w2. Construction three 20 ft. spans on main creek and one 20 ft. span on south branch, all on pile bents.

Moose Mountain creek, sections 23/24 township 7 range 4w2. Construction 40 ft. truss with three 20 ft. spans at one end and one 20 ft. span at the other.

Moose Mountain creek, sections 28/29 township 7 range 4w2. Repairs. Moose Mountain creek, sections 2/3 township 7 range 2w2. Construction one

50 ft. truss with four 20 ft. spans on piles.

Moose Mountain creek, sections 9/10 township 11 range 8w2. Construction

two 20 ft. spans on piles. Moose Mountain creek, sections 1/6 township 13 ranges 8/9w2. Construction

one 20 ft. span on frame bents, approaches graded.

Mosquito creek, section 30 township 16 range 28w4. Construction 50ft, wooden truss, one 14ft, span at north end and two 20ft, spans at south end.

Medicine river, near Tindastoli Creamery. Repairs, tightening truss

rods, etc. Melfort creek, sections 11/14 township 44 range 16w2. Construction two 20 ft.

Maple creek, sections 1/2 township 44 range 20w2. Construction one 20 ft. span on pile hents.

Maple creek, sections 15/16 township 45 range 20w2. Construction. Melfort creek, sections 19/30 township 45 range 18w2. Repairs. Meeting creek, sections 21/22 township 43 range 20w4. Construction.

Maple creek, section 10 township 9 range 26w3. Construction one 24ft. span on pile bents.

Maple creek, section 22 township 9 range 26w3. Construction one 20 ft. span

on pile bents. Medicine Lodge coulee, section 12 township 8 range 4w4. Repairs.

Muskeg creek, on trail from Aldina P.O. to lack Fish lake on Indian Reserve.

Muskeg creek, section 5 township 45 range 6w3. Construction six 20 ft. spans on pile bents.

McFarlane creek, sections 12/13 township 46 range 1w2. Construction one 30 ft. truss bridge.

Moose Jaw creek, sections 14/15 township 15 range 25w2. Repairs,

Moose Jaw creek, sections 20/29 township 15 range 24w2. Reconstruction, replacing washed out 30 ft. truss with two 20 ft. spans at each end,

Moose Jaw creek, section 30 township 18 range 24w2. Reconstruction.

Moose Jaw creek, section 13 township 17 range 25w2. Reconstruction. Moose Jaw creek, sections 4/5 township 17 range 25w2. Repairs and additional pile bent of 20 ft.

Moose Jaw creek, sections 9/10 township 16 range 26w2. Reconstruction. Moose Jaw creek, sections 35/36 township 15 range 26w2. Repairs. Moose Jaw creek, section 9 township 10 range 17w2. Grading.

Moose law creek, sections 19/20 township 14 range 22w2. Construction 50 ft.

truss and three 20 ft, spans.

Moose Jaw creek, Wood Mountain trail. Construction eight small bridges.

Moose Jaw creek, Wood Mountain trail. Construction eight small bridges.

Temporary repairs pending reconstruction.

Moose Jaw creek, sections 3/4 township 12 range 19w2. Repairs. Moose Jaw creek, sections 3/4 township 15 range 23w2. Repairs.

Moose Jaw creek, sections 29/30 township 15 range 23w2. Repairs to south approach.

Moose Jaw creek, section 20 township 14 range 22w2. Construction 50 ft. wooden truss with three 20 ft. spans.

Moose Jaw creek, sections 33/34 townships 3/4 range 2w2. Construction one 80 ft. steel span on pile piers one 20 ft. approach at each end.

Moose Jaw creek, sections 29/30 township 12 range 20w2. Construction of

four 20 ft. spans on pile bents.

Moose Jaw creek, sections 29/30 township 15 range 23w2. Repairs.

Moose Jaw creek, section 31 township 5 range 1w2. Repairs, replacing old 50 ft. truss and additional span of 20 ft.

Moose Mountain creek, sections 14/15 township 14 range 10w2. Moose Mountain creek, sections 32/33 township 13 range 9w2. Construction one 20 ft. span.

Mill creek, sections 35/36 township 51 range 23w2. Construction one 20 ft. span on pile bents.

Mill creek, sections 32/33 township 51 range 23w2. Construction one 20 ft. span on pile bents.

Montgomery creek, sections 20/29 township 13 range 3w2. Construction one

20 ft. span on pile bents. Many Bones creek, sections 15/16 township 15 range 14w2. Construction one 20 ft. span on pile bents.

Many Bones creek, sections 1/6 township 13 ranges 12/13w2. Construction two 20 ft. spans on pile bents.

Many Bones creek, sections 25/30 township 15 ranges 14/15w2. Construction

one 20 ft. span on pile bents.

Many Bones creek, sections 3/4 township 16 range 15w2. Construction one 16 ft. span on frame bents.

Nose creek, sections 1/12 township 27 range 1w5. Construction three 20 ft. spans on pile bents.

Nanton creek, sections 20/21 township 16 range 28w4. Construction two 20 ft. spans on pile bents.

North Antler creek, sections 36/6 townships 6/7 ranges 30/31w1. Repairs.

Outlet Gull creek, sections 34/35 township 40 range 1w5. Construction two 20 ft. spans on pile bents.

Old Fort creek, six miles west of Morley. Construction.

Pipestone creek, sections 1/6 township 16 ranges 6/7w2. Construction two 20 foot spans on pile bents.

Pearl creek, section 25 township 10 range 7w2. Repairs.

Pearl creek, sections 4/33 townships 22/21 range 7w2. Construction one 16 ft. span on frame bents.

Pine creek, sections 1/2 township 22 range 1w5. Construction two 20 ft. spans on pile bents.

Pine creek, section 4 township 22 range 1w5. Construction two 20 ft. spans

on pile bents. Pine creek, sections 5/6 township 22 range 1w5. Reconstruction two 20 ft.

spans on pile bents. Phanaon creek, sections 7/8 township 47 range 21w2. Reconstruction one 24

ft. round timber. Pincher creek, near village of Pincher. Repairs to floor.

Piapot creek, section 24 township 10 range 25w3. Construction 20 ft. span on pile bents.

Pipestone creek, sections 11/12 township 12 range 31wl. Repaired.

Pipestone creek, sections 27/28 township 11 range 30wl. Repairs to approaches.

Pipestone creek, sections 33/34 township 12 range 32wl. Construction two 20 ft. spans on pile bents.

Pipestone creek, sections 2/3 township 16 range 30w1. Construction two 20 ft. spans on pile bents.

Pipestone creek, sections 9/8 township 15 range 4w2. Construction.

Pipestone creek, section 3 township 15 range 3w2. Construction one 16 ft. span on pile bents.

Pipestone creek, section 6 township 15 range 3w2. Construction two 20 ft. spans on pile bents.

Pipestone creek, section 35 township 13 range 1w2. Grading approaches. Pipestone creek, sections 2/3 township 47 range 23w4. Construction 50 ft. wooden truss.

Pipestone creek, sections 19/24 township 47 ranges 24/25w4. Construction 30

ft. wooden truss, additional grading required in spring. Porter's dam, sections 23/26 township 17 range 28w2.

Construction of bridge and spillway.

Pearl creek, section 25 township 19 range 7w2. Reconstruction of a pile bridge of two 18 ft. spans.

Point aux Pins, sections 13/14 township 54 range 23w4. Construction of three 20 ft. spans on pile bents.

Pot Hole creek, sections 6/7 township 4 range 23w4. Construction one 20 ft. span on pile bents.

Pheasant creek, sections 14/15 township 22 range 9w2. Construction three 24

ft. spans on pile bents.

Pheasant creek, sections 4/5 township 21 range 9w2. Construction two 18 ft. spans on pile bents.

Qu'Appelle river, sections 16/17 township 18 range 33w1. Extension and repairs.

Qu'Appelle river, section 11 township 18 range 33wl. Repairs and reflooring. Qu'Appelle river, section 6 township 19 range 24w2. Construction four 20 ft. spans on pile bents.

Qu'Appelle river, sections 13/18 township 19 ranges 23/24w2. Construction

four 20 ft. spans on pile bents.

Qu'Appelle river, Lebret. Temporary repairs.

Qu'Appelle river, sections 7/8 township 21 range 13w2. Repairs to approaches.

Qu'Appelle river, sections 13/14 township 19 range 23w2. Repairs. Qu'Appelle river, section 14 township 19 range 22w2. Repairs. Qu'Appelle river, section 12 township 18 range 3w2. Repairs.

Qu'Appelle river, section 7 township 18 range 2w2. Repairs. Qu'Appelle river, sections 21/22 township 19 range 7w2. Repairs, temporary. Qu'Appelle river, sections 10/11 township 19a range 8w2. Repairs to approaches.

Qu'Appelle river, section 19 township 18 range 19w2. Additional 20 ft. span

to south end of Ellisboro bridge.

Qu'Appelle river, N.w. ½ section 9 township 18 range 32wl. Construction 80 ft. steel span and approaches.

Qu'Appelle river, sections 22/27 township 19 range 12w2. Construction 80 ft. steel truss and one 20 ft. span at one end.

Qu'Appelle river, section 20 township 18 range 4w2. Construction 80 ft. steel

span, two 20 ft. spans at one end.

Qu'Appelle river, section 6 township 19a range 11w2. Construction 18 ft.

span on pile bents.

Qu'Appelle river, section 22 township 18 range 9w2. Addition of 20 ft. span to south end.

Ross creek, sections 35/36 township 11 range 3w4. Construction three 20 ft. spans on pile bents.

Road allowance, sections 11/14 township 45 range 23w4. Construction two

20 ft. spans on pile bents.

Ravine, sections 25/30 township 13 range 2w2. Grading approaches.

Rivierre qui Barre, sections 23/26 township 55 range 27w4. Construction 20 ft. span on pile bents.

Ross creek, sections 21/28 township 53 range 21w4. Construction 20 ft. span on pile hents.

Road allowance, sections 19/30 township 17 range 28w2. Construction 20 ft. span on pile bents.

Road allowance, sections 25/30 township 17 ranges 28/29w2. Construction

two 20 ft. spans on pile bents.

Ravine, sections 3/34 townships 16/17 range 28w2. Construction one 20 ft. span on pile hents.

Rush lake, Wood Mountain trail. Construction one 16 ft. frame hent. Little Red Deer river, sections 9/16 township 33 range 3w5. Construction 100 ft. wooden span with two 20 ft. pile approaches.

Second Rat creek, sections 14/15 township 53 range 24w4. Construction 18 ft.

span on pile bents.

Little Red Deer river, section 33 township 32 range 4w5. Construction 100 ft. timber truss with pile approaches.

Ross creek, section 5 township 54 range 21w4. Repairs. Ross creek (hranch), sections 4/33 townships 53/54 range 21w4. Construction two small bridges 18 ft. and 20 ft. span on pile bents.

Ross creek, between R.L. 9 and 35 township 54 range 22w4. Reconstruction 40 ft. span on three pile bents.

Road allowance, sections 31/32 township 28 range 4w5. 150 yards grading completed.

Ravine, sections 14/15 township 13 range 1w2. Grading approaches.

Ravine, sections 20/21 township 14 range 15w2. Construction 20 ft. span on frame bents.

Rough Bark creek, sections 35/36 township 9 range 18w2. Construction 20 ft.

span on pile bents.

Rose Bud creek, section 15 township 31 range 2w5. Construction 20 ft. span on pile hents.

Sturgeon river, sections 28/29 township 55 range 22w4. Repairs. Sturgeon river, village of St. Albert. Flooring and other repairs.

Sturgeon river, section 36 township 54 range 25w4. Construction 50 ft. truss with two 20 ft. spans at each end.

South Antler creek, sections 14/15 township 10 range 1w2. Construction two 20 ft. spans on pile hents.

South Antler creek, sections 13/24 township 7 range 33wl. Two 20 ft. spans on pile bents.

South Antler creek, section 2 township 3 range 32wl. Repairs. South Antler creek, sections 13/18 township 2 ranges 31/32wl. Repairs.

South Antler creek, sections 21/22, township 1 range 31wl. Construction 40 ft. truss south of 60 ft. steel span.

Squaw creek, sections 22/27 township 25 range 29w2. Reconstruction.

Squaw creek, section 23 township 23 range 29w2. Construction two 20 ft.

spans on pile bents.

Squaw creek, sections 16/17 township 17 range 2w2. Construction one 20 ft. span on pile bents.

Squaw creek, section 22 township 25 range 29w2. Construction two 20 ft. spans on pile bents.

Squaw creek, sections 23/26 township 17 range 29w4. Construction one 20 ft. span on pile bents.

Spring coulee, townships 3/4, range 23w4. Construction one 20 ft. span on

pile bents. Squaw coulee, sections 11/14, township 17 range 29w4. Construction 20 ft. span on pile bents.

Six Mile coulee, about eight miles from Battleford. Construction 18 ft. span on frame bents.

Small creek, sections 6/31 townships 7/8 range 3w2. Construction two 16 ft.

spans on pile hents.

Swift creek, sections 23/26 township 8 range 3w2. Construction one 20 ft. span on pile hents.

Snake creek, sections 23/26 township 21 range 29w4. Repairs.

Slough, sections 5/8 township 19 range 27w4. Construction four 20 ft. spans on pile hents.

Sweetwater creek, sections 12/14 township 45 range 17w2. Grading.

Six Mile coulee, section 10 township 8 range 21 w4. Construction one 26 ft. span on pile bents.

Standoff creek, section 17 township 8 range 25w4. Construction one 36 ft. span on pile hents.

Snake Plain creek, township 49 range 6w3. Repairs.

Spring creek, sections 26/27 township 16 range 27w2. Construction 16 ft. span on pile bents.

Snake creek, sections 5/32 townships 33/34 range 32wl. Construction round timber bridge.

Souris river, sections 31/36 township 1 ranges 3/4w2. Repairs.

Stony creek, sections 4/5 township 51 range 24w4. Grading completed.

Stony creek, sections 12/13 township 48 range 21w4. Construction small bridge.

Stony creek, sections 12/13 township 33 range 3w2. Reconstruction 16 ft. span and corduroying approaches.

Big Stone creek, section 2 township 47 range 24w4. Construction 44 ft.

Sorefoot or Wilds creek, sections 28/33 township 26 range 6w2. Construction one 20 ft. span on pile bents. Spring creek, sections 4/5 township 17 range 26w2. Construction one 20 ft.

span on pile hents.

Branch (St. Mary's) river, section 26 township I range 25w4. Reconstruction one 16 ft. span hridge.

Stone's coulee, sections 15/16 township 43 range 3w3. Reconstruction.

Stony creek, section 4 township 48 range 20w4. Construction 19 ft. and 18 ft. spans on pile hents.

Souris river, sections 22/23 township 3 range 2w2. Construction 125 ft. steel span, five 20 ft. spans at one end and one at the other.

Souris river, sections 33/34 township 1 range 6 v2. Construction 80 ft. steel span with 20 ft. span approach at either end.

Theodore creek, sections 33/34 township 27 range 7w2. Construction two 20 ft. spans on pile bents.
Thunder creek, section 31 township 16 range 26w2. Repairs.
Trail (Old Fort Walsh), section 14 township 9 range 28w3. Construction 20 ft.

span on pile bents.

Trail from Macleod to Porcupine Hills. Construction 6 bridges and improve-

ment to trail.

Trail, Fishhurn, sections 3/4 township 8 rauge 26w4. Construction 36 ft. span

on pile bents. Thatch creek, sections 26/27 township 45 range 19w2. Construction 20 ft. span

on pile hents.

Three Hill creek, section 35 township 34 range 26w4. Construction 20 ft. span

on pile bents.

Tongue creek, sections 16/17 township 19 range 1w5. Construction three 16 ft. spans on pile bents.

Tongue creek, sections 11/14 township 19 range 2w5. Construction two 16 ft. spans on pile bents.

Tongue creek, section 13 township 9 range 29w4. Repairs, reflooring.

Trail from Barr colony east. Construction small bridges and improvement to road.

Trail, Battleford and Saskatoon, section 20 township 42 range 15w3. Construction two 2) ft. spans on pile hents.

Trail, Battleford and Saskatoon, section 36 township 41 range 16w3. Construc-

tion one 18 ft. span on pile bents.

Trail, Battleford and Saskatoon, section 16 township 43 range 16w3. Construction two 15 ft. spans on pile bents.

Trail, Cardston to Boundary line, section 16 township 2 range 25w4. Construc-

tion one 20 ft. span on pile bents. Trail, Battleford and Saskatoon, section east of Eight Mile creek. Construction two 15 ft. spans on pile bents.

Wolf creek, sections 10/15 township 42 range 26w4. Construction small bridge. Wascana creek, sections 5/6 township 14 range 15w2. Construction one 20 ft. span on pile bents.

Wascana creek, sections 9/10 township 14 range 16w2. Construction. two 16

ft. spans on pile bents. Wascana creek, sections 8/9 township 13 range 14w2. Construction one 20 ft. span on pile bents.

Wascana creek, sections 5/6 township 14 range 15w2. Repairs.

Wascana creek, sections 24/25 township 13 range 15w2. Grading approaches. Wascana creek, sections 31/32 township 17 range 20w2. Repairs. Wascana creek, sections 7/18 township 19 range 21w2. Temporary bridge. Wascana creek, section 11 township 18 range 21w2. Construction five 20 ft. spans on pile bents.

Wascana creek, sections 7/18 township 21 range 21w2. Construction 4 20 ft.

spans on pile bents.

Wascana creek, sections 27/28 township 17 range 20w2. Construction five 20

ft. spans on pile bents.

Wascana creek hranch, sections 27/28 township 15 range 17w2. Repairs.

Wascana creek, sections 19/30 townsbip 16 range 18w2. Construction four 20

ft. spans on pile bents. Wascana creek, sections 31/32 township 16 range 18w2. Construction two 20 ft. spans on pile bents. Whitemud creek, sections 20/29 township 50 range 25w4. Graded.

Little Whitemud creek, sections 30/31 township 49 range 25w4. Construction one 19 ft. span on pile bents, one 14 ft. approach at each end.

Little Whitesand river, sections 31/32 township 25 range 3w2. Construction

two 20 ft. spans on pile bents.

Wetaskiwin creek, section 16 township 46 range 24w4. Construction one 20

ft. span on pile bents. Wetaskiwin creek, sections 4/9 township 46 range 24w4. Construction on 18 ft. span on pile hents.

Whitesand river, sections 23/24 township 29 range 4w2. Reconstruction.

Whitesand river (branch), sections 21/22 township 29 range 8w2. Construction two 20 ft, spans on pile hents.

Whitesand river (little), sections 11/12 township 27 range 4w2. Repairs. Whitesand river (little), sections 1/6 township 26 range 3w2. Reconstruction

38 ft. Queen truss on piles.
Whitesand river (little), sections 29/32 township 25 range 3w2. Construction two 20 ft, spans on pile bents.

Yarrow creek, section 8 township 4 range 29w4. Construction small bridge. York lake, sections 20/21 township 25 range 4w2. Construction three 20 ft. spans.

### List of Steel Bridges Constructed During the Year 1904.

Blindman river, sections 19/30 township 42 range 2w5 Battle river, sections 36/1 townships 44/45 range 23w4. Crow's Nest river, N.w. 4 section 36 township 7 range 4w5. Crow's Nest river, s.w. 4 section 36 township 7 range 4w5. Crow's Nest river, N.w. 4 section 36 township 7 range 4w5. Dry Wood river, sections 17/18 township 4 range 28w4. Elbow river, sections 4/5 township 24 range 2w5. Little Bow river, section 5 township 15 range 21w4. Moose Mountain creek, sections 33/34 townships 3/4 range 2w2. Qu'Appelle river, N.W. 1 section 9 township 18 range 32wl. Qu'Appelle river, sections 22/27 township 18 range 12w2. Qu'Appelle river, sections 22/27 township 18 range 12w2. Qu'Appelle river, sections 22/23 township 18 range 4w2. Souris river, sections 22/23 township 3 range 2w2. Souris river, sections 33/34 township 1 range 6w2.

In addition to the above list of bridges, the construction of bridges over Belly river and Old Man river which were delegated to the Government of the North-West Territories have been completed, and description of these bridges will appear elsewhere in this report. The following bridges are worthy of special mention.

Bridge over Blindman river, Sections 19/30-42-3 5.

This is a new structure consisting of a 60 foot steel span, and 60 foot timber approach, and serves as an outlet to Morningside and Lacombe for the settlers in the Medicine Lodge settlement west of Gull lake. This together with the bridge constructed last season over the outlet of Gull lake seems to satisfactorily meet the requirements.

Bridge over Battle river Sections 31/1 Townships 44/55-23-4.

This structure consists of an 80 ft. steel span and 40 ft. of pile approach which makes a good substantial crossing, and enables the settlers east of the river to reach their market town, Wetaskiwin.

Three Bridges over Crow's Nest river between Frank and Blairmore.

The residents of Frank and Blairmore have for some years been making requests for the bridging of the Crow's Nest river at this point. Careful inspection was made, and the whole situation fully reported upon. To meet the requirements it was found that three bridges would be required; two on the N.W. \(\frac{1}{4}\) of section 36, and one on the s.W. \(\frac{1}{4}\) of 36, all in township 7-4-5, each structure to consist of an 80 ft. span with necessary pile approach.

Bridge over Drywood river, Sections 17/18-4-28-4.

The construction of this bridge has been held in abeyance. About two years ago it was decided to construct a 50 ft. wooden truss with sufficient pile approach, but the floods of 1902 so changed the condition that the construction was postponed until this season, when a 100 ft. steel span with necessary approaches was erected. This makes a very substantial structure, and with the other bridge constructed on this stream in range 29 and bridge over Yarrow creek serve as important outlets to the Crow's Nest Railway for the settlers living in the foot-hill country south of these streams over what is known as the trail from Pincher to the oil fields.

# Bridge over Elbow river at Sprucevale.

For some years past the old bridge at this point has not been giving satisfaction, and each season we have had more or less trouble and expense in repairing it. Owing to the very unsatisfactory condition of the river channel at this point a very careful examination was made with a view to constructing a bridge that would meet the requirements. In order to do this it was found necessary to construct two 80 ft. steel spans with 60 ft. of approach over the main new channel, and a 60 ft. timber truss with 100 ft. of approach over an old overflow channel, and a 40 ft. pile bridge on the overflow channel between the channels mentioned above. The construction was completed early in 1904. This makes a very substantial structure and ought to meet the flood conditions at that point, which are by no means an easy matter to overcome.

Bridge over Little Bow river, Section 5-15-21-4.

This bridge consists of an 80 ft. steel span with a 20 ft. approach to one end and affords a good crossing for the settlers residing between the Bow and Little Bow rivers. After crossing this bridge settlers have a clear way to the Calgary and Edmonton Railway, and by means of the new bridges constructed over the Old Man and Belly rivers settlers are enabled to reach Macleod or Lethbridge if necessary.

Bridge over Qu'Appelle river at Katepwe, Sections 22/27-19-12-2.

The old Katepwe bridge located at the mouth of the Katepwe lakes, has not, owing to its unsatisfactory location, been giving satisfaction for some few years, and last spring it was almost completely destroyed by floods. After a careful examination by our inspector, it was decided to change the location to road allowance something over a mile down the river, at a point known as Peltier's Crossing. An entire new bridge consisting of an 80 ft. steel span and necessary approaches was constructed, which seems to satisfactorily meet the requirements.

Bridge over Qu'Appelle river at Tantallon, Section 9-18-32-1.

Owing to the rapid growth of this town and the great number of settlers in the vicinity adjacent to the town, the department has on several occasions been requested to construct a bridge over the river at this point. A bridge consisting of an 80 ft steel span and the necessary approaches was constructed; this makes a total of 19 steel bridges on this stream. In former years bridges of almost any design were constructed on this stream, but the floods of 1902 and last spring have illustrated very clearly that something of a more permanent nature must be provided.

Bridge over Souris river near Coalfields, Sections 33/34-1-6-2.

The old bridge at this point has been in bad shape for some years and although repaired last year, the floods of the past spring destroyed it completely. This year a structure consisting of an 80 ft. steel span and necessary approaches was constructed and makes a very serviceable crossing.

Bridge over Souris river near Oxbow, Sections 22/23-3-3-2.

Owing to the unusual floods which prevailed in this part of the country last spring, the old timber truss bridge was completely washed away and it was found necessary to construct an entire new bridge. The bridge which was open for traffic early in the fall, consists of a 125 ft. steel span with 100 ft. of approach on one end and 20 ft. on the other, which makes a good substantial crossing and meets the requirements of the settlers south of the river.

Bridge over Qu'Appelle river at Fort Qu'Appelle.

This bridge which has heretofore been known as the Hudson Bay bridge was constructed several years ago by that company. For the last

few years the department has been called upon to maintain it and the expense in connection with this work each season was considerable and at the same time the bridge was not giving entire satisfaction. This year, the old structure was taken down and a substantial bridge was constructed, consisting of an 80 ft. steel span with necessary approaches. As this bridge serves the general public, the east bridge was dispensed with, not being in a safe condition for traffic. The bridge over same stream at Lebret some miles east of the fort was also repaired.

# CONSTRUCTION AND MAINTENANCE OF ROADS.

On account of the increase and extension of settlement and consequent fencing up of the old unsurveyed trails, thus forcing the use of road allowances, at least until really necessary deviation surveys are made, a large amount of road improvement is necessitated each season and the amount of road making and improvements from this cause alone is a large item each year. In addition to this the nature of the soil (generally clay loam) in the most fertile sections of the country over which the heaviest haulage of grain has usually to pass makes the maintenance of such roads in wet seasons an exceedingly difficult undertaking and in many places entirely beyond the means of the Department or local organisations. More attention to drainage of road bed to prevent damage and destruction by water would, in many cases, help the unfavourable conditions that have to be contended with, but the fact must be borne in mind that clay and earth roads always go to pieces under heavy traffic during wet weather and the scarcity of rock and gravel to use as a top dressing in many localities will be a serious drawback to even passable roads for many years to come. During 1904, \$95,064.00 was expended on road improvements directly by the Department, in addition to that done by the Local Improvement Districts, a good many of the most thickly settled districts have organised and placed themselves in a position to spend the Local Improvement Taxes upon the roads under the direction of the council. The recent wet years have been an object lesson and demonstrated pretty clearly that in many localities dry seasons are when improvements should be done, it being too expensive to grade up roads through sloughs and on wet ground during the wet seasons, while if the road had been raised and ditched during the dry seasons, it would have been possible to use it.

The importance of using brush and small timber to corduroy roads in wet places has been in many parts of the country entirely lost sight of, and many roads constructed without corduroy bottom simply lost, while the material available for such work is generally plentiful in the localities were required.

SCHEDULE of Road Improvements undertaken during the year 1904.

Between sections 33/34, 15/16, 3/4-12-30w1.
Moosomin to Fleming.
Moose Mountain trail, south from Moosomin.
Moosomin west.
Fleming north, between sections 3/4, 9/10, 15/16-13-30w1.
Between sections 7/18-14-30w1.
Between sections 12/13-14-30w1.
Between sections 2/3-16-30w1.
Assiniboine hill, section 36-22-30w1.

Moosomin south, hetween sections 28/29, 16/17, 8/9-13-31w1. Langenberg to Landshutt, between sections 34/35-21-31w1. Between sections 14/15-23-31wl. Ditch west of 19-23-31w1, to improve road between sections 24/25-23-32w1. Red Jacket to Hillburn. Red Jacket south, between sections 8/9-14-32w1. Rocanville west, hetween sections 13/24-16-32w1. Tantallon hill and south to Qu'Appelle river. Riddall's ravine, section 18-2-32w1. Between sections 27/34-21-32w1. Churchbridge north and south. Churchbridge east, between sections 16/21-22-32wl. Approaches to hridge on section 24/29-32wl. Kamsack creek hill, between sections 14/15-29-32wl. Between sections 19/20-1-33wl. Carnduff to Redvers, east of section 36-3-33wl. Wapella to St. Andrea, Hazelcliffe hill, between sections 27/34-18-33wl. Blake road, across sections 11 and 13-24-33w1. Between sections 32/33, 33/34-7-1w2. Approaches to bridge, between sections 34/35-13-1w2, Between sections 14/15, 22/23-13-1w2. Approaches to hridge, west of section 30-13-1w2. Brookside trail township 14-1w2. North of township 14-1w2. Between sections 9/16, 8/9, 8/17-16-1w2. Between sections 16/17, 20/21-17-1w2. Forest Farm to Whitewood, north of sections 7, 11 and 12-17-1w2. Between sections 15/16-19-1w2. Kaposvar to Esterhazy, between sections 27/28-19-1w2. Between sections 33/34, 21/28-19-1w2. Between sections 3:53, 21/25-18-1 w2.

Between sections 14/15-13-1w2.

Ross' crossing of the Cut Arm, hetween sections 3/10-22-1 w2.

Clumber crossing of the Cut Arm between sections 10/15-22-1 w2. Between sections 20/29-22-1w2. West boundary of township 23-1w2. Metcalfe crossing of the Cut Arm s.w. of 6-23-1w2. Between sections 6/7-24-1 w2. Between sections 1/2-25-1 w2. Between sections 8/9, 16/17-27-1w2. Between sections 4/5-9-2w2. Between sections 19/20-14-2w2, Whitewood to Sunnymeade, between sections 29/30-15-2w2. Between sections 19/24-15-2w2. Between sections 17/18-16-2w2. East of section 25-16-3w2, North of section 32-16-2w2. Between sections 5/6-16-2w2 Between sections 27/28-17-2w2. N.E. of section 36-17-2w2. Between sections 4/5-17-2w2. Approaches to bridge, hetween sections 8/9-18-2w2. North of section 33-18-2w2, East of sections 13, 24 and 25-19-3w2. Between sections 18/19, 7/18-18-2w2. Stockholm to Esterhazy, north of section 35-19-2w2. East of section 36-22-3w2 Between sections 27/34, 27/28-22-2w2. Saltcoats to Crofter Colony east of section 36-24-2w2. Between sections 10/11-24-2w2. Blake road. Between sections 5/6-29-2w2, Between sections 23/26, 25/26-2-3w2. Between sections 27/28-12-3w2. Whitewood to Fletewode, between sections 15/16-14-3w2. Whitewood to Moose Mountain. Between sections 13/24-16-3w2. East of section 25-16-3 w2. Between sections 26/27-16 3w2 Between sections 19/30-16-3w2.

Between sections 1/2-19-3w2, north,

East of range 3-18-2. Ohlen to Stockholm. Between sections 7/8, 8/17-20-3w2. Approaches to bridge between sections 16/21-28-3w2. Across sections 20 and 29-15-4w2. Approaches to bridge between sections 8/9-15-4w2. Broadview to Whitewood, between section 24/25, 23/26-16-4w2. Dubuc to Cotham, between sections 5/6-19a-4w2. North of section 35-19-4w2. Between sections 33/34-16-4 w2. On section 11-23-4w2. Yorkton-Broadview road at Cemetery slough, between sections 35/36-25-4w2. Yorkton-Otthon road, between sections 22/27-25-4w2. Yorkton-Reaman road, between sections 25/26-26-4w2. Yorkton-Touchwood road, north of sections 33 and 34-25-6w2. Between sections 11/12-27-4w2. Yorkton-Devil's lake trail, between sections 30/31-27-4w2. Between sections 14/16, 21/22-27-4w2. Between sections 9/10-3-5w2. Between sections 21/22-16-5w2. East of section 1-16-7w2. East of section 1-10-7w2.
Through section 11-26-6w2.
East of sections 4, 9 and 16-14-7w2.
Between sections 19/20, 29/30-15-7w2.
North of section 31-14-7w2. Between sections 5/6-15-7w2. Between sections 17/18-16-7w2. Grenfell-Hyde road. Hyde Hill. Road over Pearl creek, north of township 19-7w2. Approaches to bridge, between sections 21/22-19-7w2. On section 14-29-7w2 Between sections 33/34-14-8w2. East of sections 13 and 24-16-8w2. Between sections 7/8, 17-18-16-8w2. Grenfell-Tiree road. On section 19-18-8w2. Ellisboro to the Reserve. Between sections 10/11-19a-8w2. On section 2-19a-8w2 Neudorf east, west and north. Between sections 3/4-15-9w2. North of section 34-16-9w2. Wolseley to Summerberry. Approaches to bridge, between sections 25/26-17-9w2. Wolseley to Ellisboro. Approaches to bridge, between sections 18/19-18-9w2. Approaches to bridge, between sections 15/16-18-9w2. Between sections 13/14-18-9w2. Hill Farm to Lemberg, east of sections 1, 12, 13, 24-19-10w2. Lemberg west, between sections 18/19, 17/20-20-9w2. Lemberg north.
Wolseley to Lemberg between sections 9/10-20-9w2. Between sections 4/5-22-9w2. Between sections 24/25--4-10-2. Between sections 21/28-4-9w2. Approaches to hridge on section 15-14-10w2. Between sections 14/15-14-10w2. Moffat west, between sections 14/15-16-10w2. East Moffat road. Wolseley west.
Wolseley to Montmartre.
Between sections 14/15-18-10w2.
North of sections 34, 35 and 36-20-10w2. Between sections 35/36-3-11 w2. Between sections 1/2-4-11w2.

Wolseley to Fairview.

North of sections 33 and 34-14-11w2.

North of 7, 8 and 9-17-11w2.

Approaches to bridge on section 6-19a-11w2,

Korlin & Sinchutz

Kenlis to Sintaluta,

North of 21, 22, 23 and 24-30-11w2 East of section 25-17-13w2 Between sections 20/29-19-12w2 Between sections 34/35-17-13w2, south. Between sections 2/3, 10/11-19-13w2. Fort Qu'Appelle to Wideawake Fort Qu'Appelle to Loon creek. Fort Qu'Appelle to the Sioux Reserve. Approaches to bridge between sections 32/33-7-14w2 Approaches to bridge between sections 20/21-8-14w2 Ditch through section 28 to improve road between 28/29-8-14w2 North of section 31-8-14w2. Between sections 4/5-9-14w2 Between sections 22/23-17-14w2 Through sections 14 and 15-21-14w2 Through sections 19 and 30-22-14w2 Grand rapids to Cross Lake. Cross lake to Omhapewin portage. North of section 31-9-15w2. Approaches to bridge between sections 28/29-9-15w2 Between sections 24/25-13-15 w2, west 5 miles, north 4 miles. Between sections 24/25-18-1 w2. MacLean north. Between sections 35/36-19-15w2. North of section 36-19-15w2. Fort Qu'Appelle to Touchwood hills. Touchwood hills to Fishing lake. Between sections 12/13-29-15w2. North of township 10-16w2. Between sections 29/30-10-16w2. Between sections 26/27-16-16 w2. Between sections 7/8-16-16w2. Between sections 11/12, 13/14-18-16w2. East of sections 13 and 24-19-16w2. Kutawa to Wishart, Lang east and north. Approaches to bridge between sections 26/27-11-17w2. Between sections 23/24-13-17w2, north 9 miles. Between sections 23/26, 26/27-17-17w2. Balgonie to St Joseph's. Between sections 33/34-18-17w2, south 3 miles. Between sections 2/3-19-17w2. Approaches to bridge north of section 32-21-17w2. Approaches to bridge on section 16-21-17w2.

Approaches to bridge between sections 35/36-15-18w2. Between sections 23/26-15-18w2. North of township 21-18w2. Between sections 20/29-44-18w2. Between sections 3/4-12-19w2. Bet ween sections 33/34-15-19w2. Regina to Arat. Between sections 25/26-17-19w2, east one mile. Approaches to bridge between sections 36/26-17-19w2. Approaches to bridge between sections 22/27-17-19w2. Road at reservoir section 2-17-19w2. North of section 32-17-19w2. Craven to Pie-a-pot's Reserve. East of sections 24, 25 and 36-43-20w2. Between sections 12/13-44-19w2, west 3 miles. Between sections 23/26-17-20w2. Approaches to bridge between sections 31/32-17-20w2. Approaches to bridge between sections 22/27-17-20w2. Roads in L.I.D. 109. Approaches to bridge in section 33-19-21w2. Approaches to bridge between sections 23/24-20-21w2. North of section 32-20-21 w2. Criven to Strassburg.
Between sections 23/24-21-21w2, south 2 miles, east 1 mile. Between sections 32/33-21-21w2, south 2 miles, east 1 miles. Approaches to hridge between sections 27/34-26-21w2.

Between sections 15/16-27-21w2, north 4 miles.

Between sections 3/4, 9/10-28-21w2, Between sections 4/5-17-22w2. Roads in L.I.D. 95. Between sections 12/13, 11/14-44-22w2. Between sections 3/4, 9/10-15-23w2. Between sections 29/30-15-23w2. Between sections 19/30-16-23w2 East of sections 24 and 25-16-24w2. Between sections 24/25-16-24w2. Between sections 24/25-17-23w2, west. Dewdney street. Marieton to Silton. Pengarth to Marieton. Adam's crossing to Birch hills. Adam's crossing to Birch hills.
Markley's crossing.
Prince Albert to Steep creek.
Prince Albert to Markley's crossing.
Approaches to bridge between sections 14/15-15-25w2.
Between sections 8/9-22-26w2.
Rosthern to St. Peter's colony.
On section 4-47-26w2.
Red Deer hill to Prince Albert.
Between sections 19/30-16-27w2, east 2 miles then north 1 mile.
Retween sections 22/27-11-27w2. Between sections 22/27-11-27w2. Roads in L.I.D. 203. Between sections 7/18-19-27w2, east 6 miles. East of 30, 31, 32, 33 and south of 28, 29 and 30-24-27w2. Roads in Willow Bunch District. Approaches to bridge on section 13-24-28w2. Between sections 23/24-24-28w2. Approaches to bridge north of 34-25-28w2, Approaches to oringe north of 34-25-28w2. Approaches to bridge hetween sections 22/27-25-28w2. Road to bridge north of section 34-26-28w2. On section 25-40-28w2. On section 26-40-28w2. Road north of Caron between sections 25/36, 26/35-17-29w2. Roads in L.I.D. 215. Approaches to bridge between sections 22/27-25-29w2. Between sections 24/25-5-1w3. Between sections 4/5-41-1w3, north 5 miles. Approaches to Batoche ferry. Prince Albert-Shellbrook trail. East of Range 3-39w3. Batoche to Fish creek Blackstrap coulee north of section 31-32-3w3. French to Nutana, Hague west. Rosthern west. Rosthern east. Snake plain to Duck lake between sections 10/11, 14/15-46-3w3. From section 6-48-3w3 south to Saskatchewan river. Between sections 5/6-37-4w3 north 2 miles then east 2 miles. Duck lake to Carlton. Roads in L.I.D. 393. East of range 6-36w3. Saskatoon-Battleford trail. Between sections 20/29, 21/28-27-5w3. Between sections 4/5-27-5w3. Roads in L.I.D. 280.
Between sections 21/22-38-6w3, sonth 5 miles. Between sections 12/13-43-6w3, west 3 miles. Between sections 19/30-39-8w3. Approaches to bridge on section 5-39-10w3. Swift Current to Saskatchewan river, west of sections 18/19-19-11w3.

On section 7-43-12w3. On section 31-15-13w3.

On section 21-16-14w3.

On section 8-17-14w3.

Road south of Swift Current leading to C.P.R. crossing.

Road from Swift Current to Battleford in township 16-14w3.

Approaches to bridge east of Swilt Current.

In sections 5, 8 and 17-17-14w3. Approaches to ferry at Saskatchewan Landing. Bresaylor to Battleford. On section 19-10-22w3. Battleford-Lloydminster trail. On section 30-10-23w3. Maple creek to Skull creek, between sections 23/26-10-24w3. On section 25-10-24w3. Between sections 19/30 and on 29-10-24w3. Between sections 9/16-11-25w3, S.E. of section 6-11-25w3. North of section 33-10-25w3. Maple creek to The Gap. Between sections 10/11-13-36w3. On section 23-14-26w3. Battleford to Jack Fish lake. Maple creek to Battle creek on section 14-9-28w3. Lloydminster to Fort Pitt. On section 2-8-29w3. Josephsburg-Elkwater trail in township 8-2w4. Josephsburg-Sawmill trail in township 8-3w4. Josephsburg to Irvine. The Dunmore hill on the Medicine Hat-Josephsburg trail. Cypress hills trail. Between sections 15/16-11-3w4. Approaches to bridge on section 1-8-4w4. Approaches to bridge over Medicine Hat conlee on section 12-8-4w4. Approaches to bridge between sections 32/33-11-5w4. Porter's hill between sections 29/32-12-5w4. Between sections 29/30 and in 30-12-5w4. Culley coal mine trail. Vegreville to Beaver lake, north of 32-51-15w4, and between sections 10/15-52-17w4. Between sections 30/31-56-15w4, east 6 miles. Edmonton to Vegreville, between sections 10/11, 21/22-52-17w4. Pakan ferry landing and roads thereto. Victoria to Boyne lake. Approaches to bridge between sections 19/30-49-18w4. Approaches to hridge east of section 24-51-18w4. On sections 8 and 18-54-18w4. Between sections 19/30-6-19w4. Lethbridge-Stirling trail. Between sections 15/16-49-19w4. Between sections 11/12, 13/14-54-19w4. Roads in L.I.D. 43. Stoney creek hill on section 28-46-20w4. Nortli of section 31-55-20w4 Between sections 11/12-8-21w4. Rosenroli to Stoney creek. Between sections 17/18 53-21w4, north 4 miles. North of township 54-21-22w4. Roads in L.I.D. 17. On section 36-5-22w4. Between sections 23/24-5-22w4. On section 16-5-22w4. Between sections 24/25-5-22w4. Hill west of Belly river hridge. Hill east of Belly river bridge. Between sections 7/18 22-22w4. Roads in L.I.D. 430. Roseproll west. Wetaskiwin to Gould's crossing, north of township 45-22w4. Beaver lake to Edmonton. Between sections 12/13, 11/14, 10/15-53-22w4. Between sections 32/33-53-22w4. Between sections 28/29, 20/21-54-22w4. Easterly boundary of township 54-22w4. Pandai in L. I. E. 21 Roads in L.I.D. 31. Approaches to bridge on section 29-40-23w4. Between sections 24/25-40-23w4, west 4 miles. Between sections 15/16-44-23w4, north 4 miles,

Westaskiwin to Red Deer lake. Approaches to bridge, north of section 36-44-23w4. Approaches to ordige, north of Slough on section 34-45-23w4. On section 36-51-23w4. Between sections 21/28-52-23w4. Roads in L.I.D. 32. Strathcona to Clover Bar. Between sections 21/28-1-24-w4. On section 22-1-24w4, On sections 22-12-3-44.

Between sections 17/18-1-24-44.

North of township 1-24-44.

Between sections 17/18, 8/17-3-24-44.

Between sections 24/25-3-24-44. Lacombe east. Ponoka to Asker north of township 42-24w4. Wetaskiwin to Millett on C. & E. trail. North of sections 32/33-48-24w4. Roads in L.I.D. 159, Between sections 1/2-51-24w4. Between sections 21/22-51-24w4, north 3 miles. Between sections 11/12-51-24w4. Between sections 21/28-52-24w4. Edmonton to Fort Saskatchewan. Roads in L.I.D. 68. Levelling earth along Favel's lake drain. Between River Lots and township 52 west of Fulton's creek. Edmonton-Athabasca Landing trail. The road between Stoney plain and St. Albert trails. Between sections 24/25-1-25w4. Between sections 34/25-1-25w4. North of section 24-2-25w4. North of section 31-1-25w4. Between sections 10/15-2-25w4. Between sections 22/23-2-25w4. Between sections 21/28-2-25w4. Between sections 14/15-2-25w4. Between sections 11/12-2-25w4. Between sections 23/24 and on section 23-3-25w4. From St. Mary's river bridge into Cardston. Between sections 4/5-3-25w4. Between sections 25/26-3-25w4. East of section 25-8-25w4. Lacombe to Lamberton, between sections 21/28, 20/21-4-25w4. Morningside east, north of section 34-41-25w4. Between sections 10/15, 11/14, 12/13-51-25w4. Between sections 22/23-51-25w4, north 3 miles. Fourteenth base line east from Edmonton. Edmonton-St. Albert trail. Roads in L.I.D. 52. Morinville to St. Albert. East of section 36-2-27w4. Between sections 7/18-2-26w4. Cardston to Leavitt. Between sections 4/5-3-26w4. North of section 33-2-26w4. Between sections 13/14, 25/26-8-26w4.
Macleod to Porcupine hills. North of township 19-26w4. Ponoka to Pigeon lake in township 43-4w5. Ponoka to Fairybank in township 43-26w4. Easterly boundary of township 49-26w4. Between sections 25/36-49-25w4, west 12 miles. Easterly boundary of township 5-26w4. Between sections 24/25-55-26w4, east two miles. East of section 1-56-27w4. Approaches to bridge on section 11-2-27w4. Between sections 17/20-2-27w4. Between sections 16/21-2-27w4. Between sections 20/29-2-27w4.

Between sections 15/22, 16/17-2-27w4,

Between sections 19/20-2-27w4. On sections 19 and 28-2-27w4. Approaches to bridge, hetween sections 27/34-2-27w4. Between sections 27/28-2-27w4. Between sections 24/20-2-24 w4.
On sections 24 and 13-2-27 w4.
Mountain View trail on sections 19/20 and 35-2-27 w4.
Cardston-Caldwell trail, north of township 2-27 w4. Approaches to bridge, between sections 32/34-2-27w4. Between sections 35/36-2-27w4. East of section 13-17-27w4. On section 8-19-27w4. North of township 19-27w4. Between sections 20/29-20-27w4. Between sections 22/23-23-27w4. Innisfail east. Penhold to Pine lake. Red Deer east in township 38-27w4. Roads in L.I.D. 467. Blackfalds west. Morningside west. Between sections 13/14-2-28w4. North of township 18-28w4. Between sections 16/17-19-28-4, north five miles. North of township 38-28w4, Lacombe-Gull lake road. Betweeen sections 26/27-9-29w4. Between sections 21/28-18-29w4. North of section 34-17-29w4. Sawyer's hill, N.E. section 22-20-29w4. Between sections 4/5, 8/9-21-29w4. Between sections 24/25-23-29w4. North of sections 34-23-29w4. Calgary-Knee Hill trail. Pincher Creek-Oil Fields trail. Between sections 32/33-19-1w5, Between sections 21/28-19-1w5, Between sections 1/12-19-1w5. Between sections 22/27-19-1 w5. Between sections 16/17-19-1w5. Okotoks-Lineham trail in township 20 ranges 1 and 2w5. On section 36-21-1w5. Calgary-Macleod trail south to Okotoks. Mission hill near Calgary. North Blackfoot trail. Boulevard hill. Willett to Leduc on Calgary and Edmonton trail. Wetaskiwin south on C. and E. trail, Approaches to Nose creek hridge on section 3-25-1w5 Calgary-Beaver dam trail. Bowden east. Bowden west. Innisfail to Tindastoll. Red Deer to Burnt lake. Approaches to bridge between sections 34/35-40-1w5. High river to Ings.
Road leading to Weasel Head hridge.
Calgary-Morley trail, north of Bow river.
Calgary-Nose creek trail. Dog Pond creek to Olds on section 31-32-2w5. Olds west and north to Red Lodge. Berrydale school house to Red Lodge. North of township 49-2w5. Lac Ste. Anne to Edmonton. Rivierre Qui Barre to Lac la Nonne. Calgary-Millarville trail. Calgary-Morley trail south of Bow river. Between sections 11/14-25-4w5. Between sections 11/14-25-4w3.

New surveyed trail from Calgary to Cochrane.

Between sections 20/21, 27/28-25-4w5.

Jumping Pond creek bridge to top of hill in township 25-4w5.

Cochrane south to the Elbow. On section 27-26-4w5, On section 3-28-4w5, Olds west. North of section 34-26-5w5, Hills at Ghost river bridge, sections 14-26-6w5.

## Ferries.

The following ferries were operated and installed during the year:

Bow river at Blackfoot reserve. Old Man river at Summerview. Red Deer river at Steerford. Saskatchewan river (north) at Battleford (steam ferry). at Carlton. " at Elbow near Henrietta. ٠. at Fort Pitt. " at West of Rosthern. at Wingard. at Victoria. Saskatchewan river (south) at Adams. at Batoche. " at Fish creek. " at Hague. . . at Isbister's. at North of Maple Creek. at Medicine Hat. at Saskatoon. at St. Laurent. at St. Louis. " at Saskatchewan Landing. at Osler. at Hanley.

The severe floods of last spring causing such high water and ice jams resulted in considerable damage to some of the ferries. New ferries were built at Clark's Crossing. Wingard and Osler. Owing to the large influx of population to the district west of Hanley, a new ferry was installed on the South Saskatchewan river about twenty-six miles west of that point. The new bridge over Old Man river at Macleod having been completed early in the season the ferry there was moved up the river to a point near Pincher creek and was a source of relief to the settlers on the north side of the river. It will be noted from the list that twenty-three ferries were operated during the season.

## FIREGUARDS.

During 1903, 1884:54 miles of fireguard were ploughed along the Canadian Pacific Railway and branches, the Alberta Railway and Coal Company and the St Mary's River Railway. This in addition to 1119 miles of other fireguard constructed or maintained made a total of 3003:54 miles. Contracts with the railway companies were cancelled the latter part of 1903, and railway fireguarding consequently discontinued. In addition to reploughing the existing country fireguards, several miles of new guard were ploughed, the total mileage for the season of 1904 amounting to 1460 01. The ploughing of these guards was generally up to the standard specifications, viz:16 feet in width, though in some localities two 8 foot guards were provided and grass

burned between them, this, where the nature of the country will permit, being undoubtedly a more effective guard than the one 16 foot guard, though the difficulty in getting grass burned between guards has always been a drawback. The following schedule will show the location and mileage of guards constructed and maintained during 1904:

### FIREGUARDS, 1904.

Fireguards, 1904.	
	Mile
South of Swift Current in tps. 14/15-13/14w3	15
Gull Lake fireguard	16
From Rush Lake tp. 17-10w3, to Saskatchewan river tp. 19-12w3	$^{19}$
From Creek sec. 1-13-19w3, to Swift Current Creek sec. 4-12-18w3	7
From Swift Current creek sec. 30-10-20w3, to sec. 6-12-22w3	18
From Swift Current creek tp. 18-12w3, to tp. 18-11w3	10
From C.P.R. south to line between res. 15/16w3, to Swift Current creek	35
Crane lake fireguard	23
Swift Current creek to Peltiers' lake	41
From Crane lake in sec. 22-13-24w3, to lake in sec. 22-13-26w3	12
From Swift Current creek 21-19-13w3, to re. 15w3	33
From Bittern lake tp. 13-28w3, south to Maple Creek coulee trail, secs.	
$10/11$ -9-28 $\mathbf{w}3$	18
10/11-9-28w3	
and Peltier's lake	28.7
From tps. 18/19-11w3, north easterly to sec. 2-21-7w3	34
From Purple Springs, on line between res. 14/15, to west boundary of tp. 5	22
On north boundary of tp. 14 from Bow river to Little Bow	334
From Old Man river to Belly river tp. 9-22w4	60
From C.N.P.R. to Belly river tp. 9-18w4	7:
From C.N.P.R. to Belly river, res. 20/21w4. From C.N.P.R. to Belly river, res. 19/20w4.	8
From C.N.P.R. to Belly river, res. 19/20w4.	3.9
From C.N.P.R. to A.R.R. & C. Co. on line between res. 18/19w4	31
From C.N.P.R. to Belly river along west boundary of range 14	20
From Old Man river to Little Bow, between res. 24/25w4	69.3
On north boundary township 5, following line between res. 14/15w4 to	
Milk river	24
From U.N.F.R. to Delly river on the east boundary of Flegan Indian	.57
Reserve, tp. 8-26w4 to tp. 6-26w4, south to Belly river	25
On north boundary of tp. 12, across res. 25/26/27w4	14 48
From Irvin tp. 11-2w4 south to tp. 10-2w4.	12
From Bowell station N.E., to Saskatchewan river at north houndary tp.	1.5
14-5w4	18
From Bowell station to South Saskatchewan river between res. 7/8w4	11
From Saskatchewan river tp. 12 9w4, to coulee 10-8w4	
On west boundary of re. 2w5, from Sheep creek to High river	$\tilde{14}$ .
From C. & E. to Little Bow river on north houndary of tp. 14, across res.	1 1
96/27 @8w4	3.
26/27/28w4	- 55
On line butween med 01/05 from north to line of 11 to fiveward on north	
line of tp. 20-w4	42
On north-east and south of township 20-27w4.  From Gleichen north on the line between ranges 22/23w4 to north boundary	18
From Gleichen north on the line between ranges 22/23w4 to north boundary	
of township 24	17
of township 24	24
From C.P.R. to Crow Foot guard township 24-27/28w4	
On line between ranges 3/4 in township 13w2	12:
On line between ranges 3/4 in township 13w2 From section 30-20-26w2 to section 8-21-27w2	- 8
On four sides township 99-15w2	-9.1
From Shepard north on line between ranges 28/29 to north of township 26	
From Shepard north on line between ranges 28/29 to north of township 26 and west of C. & E. railway	30
From north township 26 on line between ranges 28/29w4 to Rose Bud river From C. & E. to east boundary of range 20w4 near Dead Horse lake fol-	60
From C. & E. to east boundary of range 20w4 near Dead Horse lake fol-	
lowing north boundary of township 24	60
From South Saskatchewan river to Many Island lake townships 13/14-2/3w4	- 21
From South Saskatchewan river to Many Island lake townships 13/14-2/3w4 From east of range 25w4 to one nule west of C. & E. following boundary of	
township 10-25/26/27w4	13
township 10-25/26/27w4	15%
On north boundary of township 23-28w4	60

	Miles.
From north boundary of township 24, following ranges 25/26 to Knee Hill	
creek in township 30	31
On township 22-26/27/28w4	19
From C.P.R. south to Bow river following line between ranges 12/13w4	22.25
From Swift Current creek, N.E. corner section 21-19-13w3, west of fireguard	
on boundary of township 19-15w3	15
From Four Mile coulee to Battle creek and from Battle creek, in section	
31-7-29w3, west to 4th meridian, to section 19-4-28w3	6
From line between ranges 2/3w3, following line between townships 27/28,	
west of sections 33/27w4	30
From C.P. Ry. sections 16/17-13-21w3, thence north to township line	
between townships 15/16, thence west to line between ranges 21/22,	
thence north to sand hills, say 36-16-22w3	24
From the South Saskatchewan river on line between townships 17/18 to	
the line between ranges 1/2w4, thence south to meet guard on south	
boundary township 13	36
From South Saskatchewan river to lake Enokimi following line between	
ranges 10/11w4 south to lake Enokimi.	28
On line between ranges 2/3w4, from the C.P.R. north to south boundary	
of township 14	12
From Belly river to Bow river	17
From Big Stick lake township 8-15-28w3 to Many Island lake section 12-14-	
30-3	34
From section 35-6-29w3 to N.E. corner of township 6-29w3, thence south	
hetween ranges 28/29 to south-west corner of section 30-4-28w3	17
Stair fireguard section 12-13-7w4 to section 13-36-6w4	11

#### LOCAL IMPROVEMENT BRANCH.

Staff	 	1 clerk in charge. 1 cashier. 1 assistant cashier. 1 accountant 9 permanent clerks. 6 temporary clerks. 3 stenographers.
Staff	 	l accountant permanent clerks between temporary clerks stenographers.

The work of this branch in 1904 grew in a manner corresponding to the influx of population. At times when the work had become almost congested it was found necessary to engage temporary clerks in order that the various parts of the work should be completed before the end of the year.

## SMALL DISTRICTS.

Many areas which have heretofore been in large districts were organised under the provisions of The Local Improvement Ordinance passed in November, 1903.

Following is a complete list of small districts which were formed in 1904 and the opening months of the present year.

1-A-1—Townships 1 and 2 in ranges 30 and 31 and east halves of townships 1 and 2 in range 32 all west of the first meridian. Secretary-treasurer: Wm. McBrien,

Elmore, Assa.
2-A-1—Townships 3 and 4 in ranges 30 and 31 west of the first meridian.

Secretary-treasurer: Alex. McClung, Gainsboro.
3-A-1—Townships 5 and 6 in ranges 30 and 31 west of the first meridian.

3-A-1—Townships 3 and 6 in ranges 30 and 31 west of the first meridian. Secretary-treasurer: James Akeroyd, Antler.
4-A-1—Townships 7 and 8 in ranges 30 and 31 west of the first meridian. Secretary-treasurer: Edgar Haight, Antler.
5-A-1—Townships 9 and 10 in ranges 30 and 31 west of the second meridian. Secretary-treasurerer: Kate Stableford, Lippentott.
6-A-1—Townships 11 and 12 in ranges 30 and 31 west of the first meridian. Secretary-treasurer: M. McPhee, Fleming.

7-A-1-Townships 13 and 14 in ranges 30 and 31 west of the first meridian-

Secretary-treasurer: R. J. Phin, Moosomin, Assa. 8-A-1—Townships 15 and 16 in ranges 30 and 31 west of the first meridian.

Secretary-treasurer: Richard Cail, Cailmount, Assa.

9-A-1—Townships 17 and 18 in ranges 30 and 31 west of the first meridian.
Secretary-treasurer: John A. Brown, Spy Hill, Assa.

10-A-1-Townships 19 and 20 in ranges 30 and 31 west of the first meridian.

Secretary-treasurer: C. H. Blucke, Bavelow, Assa.

11-A-1—Townships 21 and 22 in ranges 30 and 31 west of the first meridian. Secretary-treasurer: Henry J. Veal, Langenhurg.

12-A-1-Townships 23 and 24 in ranges 30, 31 and 32 west of the first meridian.

Secretary-treasurer: Gisli Egilson, Logberg, Assa.
13-A-1—Townships 25 and 26 in ranges 30, 31 and 32 west of the first meridian.
Secretary-treasurer, J. L. Anderson, Castle Avery.

- 14-A-1—Portions east of Assiniboine river in township 27 ranges 30 and 31, township 28 range 30 and portion east of river in township 28 range 31, township 29 range 30 and portions east of river and Indian reserve in township 29 range 31 all west of the first meridian. Secretary-treasurer:

  17-A-1—Townships 33 and 34 in ranges 30, 31 and 32 and portions not included
- in Indian reserve of township 32 range 32 all west of the first meridian. Secretary-treasurer:

18-A-1—Townships 35 and 36 in ranges 30 and 31 west of the first meridian.

Secretary-treasurer:

- 1-B-1-West halves of townships 1 and 2 in range 32; township 1 and 2 in range 33 and fractions of townships 1 and 2 range 34 all west of the first meridian. Secretary-treasurer: P. E. Ross, Carnduff, Assa.

  2-B-1—Townships 3 and 4 in ranges 32 and 33 and fractions of townships 3 and 4
- in range 34 west of the first meridian. Secretary-treasurer: George Melton, Carnduff. Assa.
- 3-B-1—Townships 5 and 6 in ranges 32, 33 and 34 west of the first meridian. Secretary-treasurer: T. G. Ellis, Redvers, Assa.
  4-B-1—Townships 7 and 8 in ranges 32, 33 and 34 west of the first meridian. Secretary-treasurer: T. W. Montgomery, Redvers, Assa.
  5-B-1—Townships 9 and 10 in ranges 32, 33 and 34 west of the first meridian.

- Secretary-treasurer: Isaiah Bricker, Glen Adelaide. 6-B-1 Townships 11 and 12 in ranges 32 and 33 and fractions of townships 11 and 12 in range 34 west of the first meridian. Secretary-treasurer: A. H. Salmon, Riga, Assa.
- 7-B-1-Townships 13 and 14 in ranges 32 and 33 and fractions of townships 13 and 14 in range 34 west of the first meridian. Secretary-treasurer: K. Price. Mosomin, Assa.

  8-B-1—Townships 15 and 16 in ranges 32 and 33 west of the first meridian.

  Secretary-treasurer: Thos. F. Terry, Wapella, Assa.

  9-B-1—Townships 17 and 18 in ranges 32 and 33 west of the first meridian.

10-B-1-Townships 19 and 20 in ranges 32 and 33 west of the first meridian. Secretary-treasurer: J. H. Riddall, Redpath, Assa.

11-B-1—Townships 21 and 22 in ranges 32 and 33 west of the first meridian. Secretary-treasurer: John Riglin, Riversdale, Assa.

- 14-B-1—Portions west of Assimiboine river of townships 27 ranges 30 and 31 and townships 28 and 29 in ranges 31 and 32 and township 27 in range 32 west of the first meridian, also fraction of townships 27, 28, 29 and 30 in range 33 west of the first meridian. Secretary-treasurer:

  1-A-2—Townships 1 and 2 in ranges 1 and 2 west of the second meridian.

  Secretary-treasurer: Wm. M. V. Carpendale, Oxhow, Assa.

  2-A-2—Townships 3 and 4 in ranges 1 and 2 west of the second meridian.

  Secretary-treasurer: W. Staples, Oxbow, Assa.

  3-A-2—Townships 5 and 6 in ranges 1 and 2 west of the second meridian.

  Secretary-treasurer: C. A. Charges 1 and 2 west of the second meridian.

- 4-A-2—Townships 7 and 8 in ranges 1 and 2 west of the second meridian. Secretary-treasurer: C. N. Malthy, Manor, Assa.
  5-A-2—Townships 9 and 10 in ranges 1 and 2, portions not included in 1ndian Reserve, west of the second meridian. Secretary-treasurer: S. E. Howarth, Glen Adelaide.
- 6-A-2—Townships 11 and 12 in ranges 1 and 2 west of the second meridian. Secretary-treasurer: Geo. Avery, Kissina, Assa.
  7-A-2—Townships 13 and 14 in ranges 1 and 2 west of the second meridian.

Secretary-treasurer: Donald McDiarmid, Benbecula.
8-A-2—Townships 15 and 16 in ranges 1 and 2 west of the second meridian.
Secretary-treasurer: W. A. Mann, Sunnymead, Assa.

9-A-2—Township 17 in ranges 1 and 2 and portions south of Qu'Appelle river of township, 18 in ranges 1 and 2 west of the second meridian. Secretarytreasurer: S. A. Petchell, Forest Farm, Assa.

10-A-2—Portions north of Qu'Appelle river of township 18 in ranges 1 and 2 and townships 19a, 19 and 20 in ranges 1 and 2 west of the second meridian. Secretary-treasurer: J. Donohue, Esterhazy, Assa.

11-A-2-Townships 21 and 22 in ranges 1 and 2 west of the second meridian.

Secretary-treasurer: M. D. Barker, Clumber, Assa. 12-A-2—Townships 23 and 24 in range 33 west of the first meridian and townships 23 and 24 in ranges 1 and 2 west of the second meridian. Secretary-

treasurer: Gilbert Hughes, Saltcoats.

13-A-2—Townships 25 and 26 in range 33 west of the first meridian and townships 25 and 26 in ranges 1 and 2 west of the second meridian. Secretary-

treasurer: M. Matheson, Stornoway, Assa.
14-A-2—Townships 27 and 28 in ranges 1 and 2 west of the second meridian.

18-A-2—Townships 27 and 28 in ranges 1 and 2 west of the Second and Incomplete and 2 second and 2 second and 2 second township 30 in ranges 1 and 2 township 30 in ranges 1 and 2 and township 31 in range 2 west of the second meridian and portions west of Assiniboine river of townships 30, 31 and 32 in range 32 west of the first meridian and possible 30 and 32 in range 32 west of the first meridian and 32 in range 32 west of the first meridian and 32 in range 32 west of the first meridian and 33 in range 32 west of the first meridian and 33 in range 32 west of the second and 33 in range 32 west of the second and 33 in range 32 west of the second and 34 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 32 west of the second and 35 in range 35 in range 32 west of the second and 35 in range 35 in rang and of townships 31 and 32 in range 1 and township 32 in range 2 west of second meridian. Secretary-treasurer:

1-B-2-Townships 1 and 2 in ranges 3 and 4 west of the second meridian.

Secretary-treasurer: A. Mackenzie, North Portal.

2-B-2—Townships 3 and 4 in ranges 3 and 4 west of the second meridian. Secretary-treasurer: D. McKnight, Frobisher, Assa.

3-B-2—Townships 5 and 6 in ranges 3 and 4 west of the second meridian. Secretary-treasurer: Samuel Martin, Donglaston.

4-B-2-Townships 7 and 8 in ranges 3 and 4 west of the second meridian. Secretary-treasurer: A. A. Campbell, Carlyle, Assa.
6-B-2—Townships 11 and 12 in ranges 3 and 4 west of the second meridian.

Secretary-treasurer: J. P. Connell, Fletwode, Assa.

7-B-2—Townships 13 and 14 in ranges 3 and 4 west of the second meridian. Secretary-treasurer: W. J. White, Fitzmaurice, Assa.

8-B-2-Townships 15 and 16 in ranges 3 and 4 west of the second meridian.

Secretary-treasurer: Jos. Cope, Broadview, Assa. 10-B-2—Portions not included in Indian Reserve of townships 18 and 19a in ranges 3 and 4 and townships 19 and 20 in ranges 3 and 4 west of the second meridian. Secretary-treasurer: Wm. Granville, Dubuc, Assa.
11-B-2—Townships 21 and 22 in ranges 3 and 4 west of the second meridian.

Secretary-treasurer: Gwilym Lewis, Llewelyn, Assa.

12-B-2--Townships 23 and 24 in ranges 3 and 4 west of the second meridian. Secretary-treasurer: H. H. Watts, Crescent Lake.

13-B-2—Townships 25 and 26 in ranges 3 and 4 west of the second meridian. Secretary-treasurer: Thos. A. Waterfield, Yorkton.

14-B-2 -Townships 27 and 28 in ranges 3 and 4 west of the second meridian.

Secretary-treasurer: G. Gabert, Ebenezer, Assa.

15-B-2-Townships 29 and 30 in ranges 3 and 4 west of the second meridian. Secretary-treasurer: M. Gahora, Yorkton, Assa.

16-B-2-Townships 31 and 32 in ranges 3 and 4 west of the second meridian.

Secretary-treasurer:

17-B-2-Townships 33 and 34 in ranges 3 and 4 west of the second meridian.

17-12—Townships 33 and 34 in ranges 5 and 6 west of the second meridian.
Secretary-treasurer: Wm. Jones, Plateau, Assa.
1-C-2—Townships 1 and 2 in ranges 5 and 6 west of the second meridian.
Secretary-treasurer: Robert Dunhar, North Portal.
2-C-2—Townships 3 and 4 in ranges 5 and 6 west of the second meridian,
Secretary-treasurer: H. W. Breeze, Roseview, Assa.

3-C-2—Townships 5 and 6 in ranges 5 and 6 west of the second meridian. Secretary-treasurer: A. C. Moynes, Roseview, Assa.
4-C-2—Townships 7 and 8 in ranges 5 and 6 west of the second meridian. Secretary-treasurer: Wm. F. Tait, Kisby, Assa.
5-C-2—Townships 9 and 10 in ranges 5 and 6 west of the second meridian.

Secretary-treasurer: John A. Hall, Percy, Assa.

6-C-2-Townships 11 and 12 in ranges 5 and 6 west of the second meridian.

Secretary-treasurer: Ayton Safford, Hazelwood.
7-C-2—Townships 13 and 14 in ranges 5 and 6 west of the second meridian.

Secretary-treasurer: Robert Brown, Crystal Springs.

8-C-2-Townships 15 and 16 in ranges 5 and 6 west of the second meridian. Secretary-treasurer: M. S. Deacon, Grenfell, Assa.

10-C-2- Townships 18 and 19a in Range 5 and townships 19 and 20 in ranges 5 and 6 west of the second meridian. Secretary-treasurer: David Palmer, Grayson, Assa.

11-C-2—Townships 21 and 22 in ranges 5 and 6 west of the second meridian. Secretary-treasurer:

12-C-2-Townships 23 and 24 in ranges 5 and 6 west of the second meridian.

Secretary-treasurer: F. J. Stowers, Otthon, Assa.

13-C-2—Townships 25 and 26 in ranges 5 and 6 west of the second meridian. Secretary-treasurer: James B. Swallow, Willowbrook.

14-C-2-Townships 27 and 28 in ranges 5 and 6 west of the second meridian.

14-C-2—Townships 27 and 28 in ranges 5 and 6 west of the second incredian.
Secretary-treasurer: (feo. Fernie, Beaverdale, Assa.
1-D-2—Townships 1 and 2 in ranges 7 and 8 west of the second meridian.
Secretary-treasurer: W. J. Hobbs, Estevan, Assa.
2-D-2—Townships 3 and 4 in ranges 7 and 8 west of the second meridian.

Secretary-treasurer: Henry Yardley, Estevan, Assa.

3-D-2-Townships 5 and 6 in ranges 7 and 8 west of the second meridian.

Secretary-treasurer: James Cremer, Estevan, Assa.

4-D-2 -Townships 7 and 8 in ranges 7 and 8 west of the second meridian.
Secretary-treasurer: R. McKenzie, Stoughton, Assa.

5-D-2—Townships 9 and 10 in ranges 7 and 8 west of the second meridian. Secretary-treasurer: W. F. Carefoot, Stoughton. 6-D-2-Townships 11 and 12 in ranges 7 and 8 west of the second meridian.

Secretary-treasurer: Archie McIndoe, Graytown, Assa.

7-D-2-Townships 13 and 14 in ranges 7 and 8 west of the second meridian. Secretary-treasuref:

8-D-2-Townships 15 and 16 in ranges 7 and 8 west of the second meridian.

Secretary-treasurer: I. H. Brierly, Grenfell.
9-D-2—Township 17 in range 6 and townships 17, 18 and 19a in ranges 7 and 8 west of the second meridian. Secretary-treasurer: G. D. Fitzgerald, Grenfell.

10-D-2—Townships 19 and 20 in ranges 7 and 8 west of the second meridian. Secretary-treasurer: J. W. Redgwick, Neudorf.

11-D-2-Townships 21 and 22 in ranges 7 and 8 west of the second meridian. Secretary-treasurer: Edward Sargeant, Rosemount.

12-D-2-Townships 23 and 24 in ranges 7 and 8 west of the second meridian.

Secretary-treasurer: John J. Ellingson, Plainview. 13-D-2-Townships 25 and 26 in ranges 7 and 8 west of the second meridian.

Secretary-treasurer: P. Duff, Beaverdale, Assa.

14-D-2—Townships 27 and 28 in ranges 7 and 8 west of the second meridian. Secretary-treasurer: A. C. Tracy, Theodore, Assa.

1-E-2—Townships 1 and 2 in ranges 9 and 10 west of the second meridian. Secretary-treasurer: Wm. Stoll, Estevan, Assa.

2-E-2—Townships 3 and 4 in ranges 9 and 10 west of the second meridian.

Secretary-treasurer: M. J. Breen, Macoun, Assa.
3-E-2—Townships 5 and 6 in ranges 9 and 10 west of the second meridian.

Secretary-treasurer: E. Rollins, Macoun. Assa.

4-E-2--Townships 7 and 8 in ranges 9 and 10 west of the second meridian. Secretary-treasurer: C. M. Gohn, Hudmore, Assa.

5-E-2—Townships 9 and 10 in ranges 9 and 10 west of the second meridian. Secretary-treasurer: W. C. Carrothers, Creelman.

Secretary-treasurer: W. C. Carrothers, Creeman.
6-E-2—Townships 11 and 12 in ranges 9 and 10 west of the second meridian.
Secretary-treasurer: H. J. McDiarmid, Fillmore.
7-E-2—Townships 13 and 14 in ranges 9 and 10 west of the second meridian.
Secretary-treasurer: N. W. McLeod, Charing, Assa.
8-E-2—Township 15 in ranges 9, 10 and 11 and township 16 in ranges 9 and 10 west of the second meridian. Secretary-treasurer: Wm. Green, Wolseley, Assa.

9-E-2—Townships 17, 18 and 19a in ranges 9 and 10 west of the second meridian. Secretary-treasurer: W. P. Osler, Wolseley, Assa. 10-E-2—Townships 19 and 20 in ranges 9 and 10 west of the second meridian.

Secretary-treasurer: Wm. Jolly, Lemberg, Assa.

11-E-2—Townships 21 and 22 in range 9, township 21 in range 10, and portions not included in Indian Reserve of township 22 in range 10 west of the second meridian. Secretary-treasurer: John Teece, Lorlie.

15-E-2—Townships 29 and 30 in ranges 9 and 10 west of the second meridian.

Secretary-treasurer: J. F. Odell, Sheho.

2-H-2—Townships 3 and 4 in ranges 11 and 12 west of the second meridian, Secretary-treasurer: J. H. Holmes, Macoun.

3-H-2—Townships 5 and 6 in ranges 11 and 12 west of the second meridian. Secretary-treasurer: W. II. Smith, Halbrite.

4-H-2—Townships 7 and 8 in ranges 11 and 12 west of the second meridian. Secretary-treasurer: F. A. Hunter, Halbrite.

5-H-2—Townships 9 and 10 in ranges 11 and 12 west of the second meridian. Secretary-treasurer: Walter Stewart, Fillmore.

6-H-2—Townships 11 and 12 in ranges 11 and 12 west of the second meridian.

Secretary-treasurer: J. E. Keeler, Osage.
7-H-2—Townships 13 and 14 in ranges 11 and 12 and township 14 in range 13 west of the second meridian. Secretary-treasurer: J. H. Huffman, Osage.
11-H-2—Townships 20 and 21 in range 11, townships 21 and 22 in range 12,

and portions not included in Indian Reserve of township 22 in range 11, portions north and east of Qu'Appelle river and lakes of township 20 in range 12 west of the second meridian and portions north of Qu'Appelle river of townships 19 and 19a in range 11. Secretary-treasurer: J. A. Balfour, Balcarres, Assa.

14-H-2—Townships 27 and 28 in ranges 11 and 12 west of the second meridian. Secretary-treasurer: T. G. Gates, Maltby, Assa.

15-H-2—Townships 29 and 30 in range 11 and 12 west of the second meridian.

Secretary-treasurer: Leeson Kidd, Foam lake, Assa.

16-H-2—Townships 31 and 32 in ranges 11 and 12 west of the second meridian. Secretary-treasurer: R. E. Coupland, Foam Lake, Assa.

Secretary-treasurer: R. E. Coupland, Foam Lake, Assa.

3-J-2—Townships 5 and 6 in ranges 13 and 14 west of the second meridian.

Secretary-treasurer: Wm. Pepper, Weyburn, Assa.

4-J-2—Townships 7 and 8 in ranges 13 and 14 west of the second meridian.

Secretary-treasurer: J. McTaggart, Weyburn, Assa.

5-J-2—Townships 9 and 10 in ranges 13 and 14 west of the second meridian.

Secretary-treasurer: J. W. Smith, box 20, Weyburn, Assa.

6-J-2—Townships 11, 12 and 13 in ranges 13 and 14 west of the second meridian. Secretary-treasurer: John Simpson, Tyvan, Assa.

11-J-2—Portion south of Qu'Appelle river of township 20 in range 12 and townships 20, 21 and 22 in ranges 13 and 14 west of the second meridian. Secretary-treasurer: W. M. Thomson, Fort Qu'Appelle, Assa.

12-J-2—Townships 23 and 24 in ranges 13 and 14 west of the second meridian. Secretary-treasurer: Jos. A. Atkinson, Lipton, Assa.

12-J-2—Townships 23 and 24 in ranges 13 and 14 west of the second ineridian. Secretary-treasurer: Jos. A. Atkinson, Lipton, Assa.

16-J-2—Townships 33 and 34 in ranges 13 and 14 west of the second meridian. Secretary-treasurer: Wm. Bole, Wadena Lake, Assa.

4-M-2—Townships 7 and 8 in ranges 15 and 16 west of the second meridian. Secretary-treasurer: R. F. May, Weyburn, Assa.

5-M-2—Townships 9 and 10 in ranges 15 and 16 west of the second meridian. Secretary-treasurer: James Smith, Yellow Grass, Assa.

6-M-2—Townships 11—12 and 13 in ranges 15 and 16 west of the second

6-M-2—Townships 11, 12 and 13 in ranges 15 and 16 west of the second meridian. Secretary treasurer: John J. Nicol, Yellow Grass, Assa. 11-M-2-Portions not in Indian Reserve of township 21 in ranges 15, 16 and

17 and township 22 in ranges 15, 16 and 17 west of the second meridian. Secretary-treasurer: F. S. Proctor, Loon Creek, Assa.

21-M-2—Townships 43 and 44 in ranges 15 and 16, west of the second meridian.

Secretary-treasurer: C. J. Lutes, Tisdale, Sask.
5-N-2—Townships 9 and 10 in ranges 17 and 18 west of the second meridian.
Secretary-treasurer: Thos. Murray, Yellow Grass, Assa.
6-N-2—Townships 11 and 12 in ranges 17 and 18 west of the second meridian.

6-N-2—Townships 11 and 12 in ranges 17 and 18 west of the second meridian. Secretary-treasurer:—S. C. Wright, Lang, Assa.
7-N-2—Townships 13 and 14 in ranges 17 and 18 west of the second meridian. Secretary-treasurer J. J. McDonough, Milestone, Assa.
8-N-2—Townships 15 and 16 in ranges 17 and 18 west of the second meridian. Secretary-treasurer: Thos. F. McGregor, Regina, Assa.
9-N-2—Townships 17 and 18 in ranges 17 and 18 west of the second meridian. Secretary-treasurer: Thos. D. Kemp, Balgonie, Assa.
10-N-2—Townships 19 and 20 ranges 17 and 19 and township 19 in range 18 west of the second meridian. Secretary-treasurer: W. H. Davis, Foxleigh, Assa.
21-N-2—Townships 43 and 44 in ranges 17 and 18 west of the second meridian. Secretary-treasurer: Jos. A. Grainger, Melfort, Sask.
22-N-2—Townships 45 and 46 in ranges 17 and 18 west of the second meridian.

22-N-2-Townships 45 and 46 in ranges 17 and 18 west of the second meridian. Secretary-treasurer: Walter Starkey, Star City, Sask.
6-P-2-Townships 11 and 12 in ranges 19 and 20 west of the second meridian. 6-F-2—Townships 11 and 12 in ranges 15 and 2 west of the second meridian.

Secretary-treasurer: G. A. Sylte, Milestone, Assa.

7-P-2—Townships 13 and 14 in ranges 19 and 20 west of the second meridian.

Secretary-treasurer: John A. Weir, Wilcox, Assa.

8-P-2—Townships 15 and 16 in ranges 19 and 20 west of the second meridian.

8-P-2—Townships 13 and 16 in ranges 19 and 20 west of the second meridian. Secretary-treasurer: J. C. Moore, Regina, Assa.
9-P-2—Townships 17 and 18 in ranges 19 and 20 west of the second meridian. Secretary-treasurer: S. Chivers-Wilson, Regina, Assa.
10-P-2—Townships 19 and 20 in ranges 20 and 21 west of the second meridian. Secretary-treasurer: Jas. Russell, Craven, Assa.
12-P-2—Townships 23 and 24 in ranges 19 and 20 west of the second meridian. Secretary-treasurer:

Secretary treasurer: 13-P-2—Townships 25 and 26 in ranges 19 and 20 west of the second meridian. Secretary-Treasurer: Hugh Holmes, Strassburg, Assa.

21-P-2--Townships 43 and 44 in ranges 19 and 20 west of the second meridian. Secretary-treasurer: J. N. Irvine, Pleasant Valley, Sask.

22-P-2-Townships 45 and 46 in ranges 19 and 20 west of the second meridian.

Secretary-treasurer: John Kerr, Melfort, Sask.

7-R-2-Townships 13 and 14 in ranges 21 and 22 west of the second meridian. Secretary-treasurer: G. L. McKee, Rouleau, Assa.

8-R-2-Townships 15 and 16 in ranges 21 and 22 west of the second meridian.

Secretary-treasurer: C. B. Hastings, Rouleau, Assa.
9-R-2—Townships 17 and 18 in ranges 21, 22 and 23 west of the second meridian. Secretary-treasurer: Ed. Oliver, Pense, Assa.

10-R-2—Townships 19 and 20 in ranges 22 and 23 west of the second meridian.

Secretary-treasurer: John Martin, Glen Valley, Assa.

12-R-2 - Townships 23 and 24 in ranges 21 and 22, township 24 in range 23 and portions east of Last Mountain lake of township 23 in range 23 and township 24 in range 24 all west of the second meridian. Secretary-treasurer, J. A. House, Strassburg, Assa. 18-R-2—Townships 37 and 38 in ranges 21 and 22 west of the second meridian.

Secretary-treasurer: John J. Ecker, Muenster, Sask.

19-R-2—Townships 39 and 40 in ranges 21 and 22 west of the second meridian. Secretary-treasurer: F. X. Strueby, Dead Moose Lake, Sask.
22-R-2—North half of township 44 in range 21, township 45 in ranges 21 and 22, fractions of township 46 in ranges 21 and 22, township 45 in range 21a and 25. township 45a in range 22 west of the second meridian. Secretary-treasurer: J. S. Forsyth, Kinistino, Sask.

23-R-2—Townships 47 and 48 in range 21, portion south of river of township 49 in range 21, east half of township 47 in range 22 and portion south and east of river of east halves of townships 48 and 49 in range 22 west of the second meri-

dian. Secretary-treasurer: Geo. Manson, Weldon, Sask. 24-R-2--Portions south of Saskatchewan river of west halves of townships 47 and 48 in range 22, township 47 in range 23, portion south of river of township 48 in range 23, portions south and east of river not included in Indian Reserve of townships 47 and 48 in range 24 and township 48 in range 24a, township 47a in ranges 24 and 25 all west of the second meridian. Secretary-treasurer: R. B. Atkinson, Kyle, Sask.
6-S-2—Townships 11 and 12 in ranges 23 and 24 west of the second meridian.

Secretary-treasurer:

7-S-2-Townships 13 and 14 in ranges 23 and 24 west of the second meridian.

Secretary-treasurer: Wm. L. McRorie, New Warren, Assa. 8-S-2—Townships 15 and 16 in ranges 23, 24 and 25 west of the second meridian. Secretary-treasurer: C. A. Mills, Pasqua, Assa.

9-S-2—Townships 17 and 18 in ranges 24 and 25 west of the second meridian.

Secretary-treasurer: R. M. Johnson, Eastview, Assa.

12-S-2-Portions west of lake in township 23 in ranges 23 and 24, township 24 in range 24 and townships 23 and 24 in range 25 west of the second meridian, Secretary-treasurer: 18-S-2-Townships 37 and 38 in ranges 23 and 24 west of the second meridian.

Secretary-treasurer:

20-S-2—Townships 41 and 42 in ranges 24 and 25 west of the second meridian. Secretary-treasurer: Rev. Th. Schmid, Bonne Madonne, Sask.

22-S-2—Townships 45 and 46 in ranges 23 and 24 west of the second meridian. Secretary-treasurer: George Taylor, Jr., Brancepeth, Sask.

23-S-2-Portions between north and south branches of Saskatchewan river of townships 48 and 49 in ranges 22 and 23, township 48 in range 24a, township 49 in range 24 and townships 47 and 48 in ranges 24 and 25 west of the second meridian. Secretary-treasurer: G. S. Reid, Cecil, Sask.

8-T-2—Townships 15 and 16 in ranges 26 and 27 and township 16 in range 28 west of the second meridian. Secretary-treasurer: W. T. Cunningham, Box 412,

Moose Jaw, Assa. 9-T-2—Townships 17 and 18 in ranges 26 and 27 west of the second meridian.

Secretary-treasurer: W. H. Smith, Moose Jaw, Assa. 10-T-2—Townships 19 and 20 in ranges 26 and 27 west of the second meridian. Secretary-treasurer: G. H. Logan, Moose Jaw, Assa.

12-T-2—Townships 23 and 24 in ranges 26 and 27 west of the second meridian.

12-1-2—Townships 25 and 24 in ranges 25 and 27 west of the second meridian.

Secretary-treasurer: George Patton, Aylesbury, Assa.

19-T-2—Townships 39 and 40 in ranges 25 and 26 west of the second meridian.

Secretary-treasurer: Peter Arnoldy, Alvena, Sask.

21-T-2—Townships 43 and 44 in ranges 25 and 26 west of the second meridian.

Secretary-treasurer: G. R. B. Green, Domremy, Sask.

22-T-2—Township 46 in ranges 25 and 26, township 45 in ranges 26 and 27 including river lots, township 46 in range 27 and townships 45 and 46 in range 28 west of the second meridian. Secretary-treasurer: W. H. S. Gange, Box 96, Prince Albert, Sask.

23-T-2—Townships 47 and 48 in ranges 26 and 27 and township 47 in range 28 west of the second meridian. Secretary-treasurer: R. J. M. Sutherland, Prince  ${f Albert}$ .

24-T-2—Townships 45 and 46a in range 25 and townships 45a and 46a in range 26 west of the second meridian. Secretary-treasurer: Ben Cook, Deer Lodge,

9-W-2-Townships 17 and 18 in ranges 28 and 29 west of the second meridian.

Secretary-treasurer: James Gilmour, Caron, Assa.

10-W-2—Townships 19 and 20 in range 28 and townships 19 and 20 in ranges 29 and 30 west of the second meridian. Secretary-treasurer: A. E. Sturgeon, Caron, Assa. 12-W-2—Townships 23 and 24 in ranges 28 and 29 west of the second meridian.

Secretary-treasurer: A. H. Birch, Craik, Assa.
21-W-2—Townships 43, 44, 45a and part south of Saskatchewan river of township 46a range 27 and fractions of townships 43, 44 and 45a including river lots and portion south of river and river lots of township 45 in range 28 west of the second meridian. Secretary-treasurer: Louis Schmidt, St. Louis, Sask.

17-A-3—Townships 33 and 34 in ranges 1 and 2 west of the third meridian.

Secretary-treasurer: Henry Rodwell, Curzon, Assa. 21-A-3—Portions west of Saskatchewan river of township 42 in ranges 1 and 2 and township 41 in ranges 2 and 3 township 42 in range 3 and townships 41 and 42 in range 4 west of the third meridian. Secretary-treasurer: J. H. Klassen, Rosthern, Sask.

22-A-3-Portions west of the Saskatchewan river of townships 43a, 43 and 44 in range 1, townships 43a, 43 and 44 in range 2, township 43a and portion not in Indian Reserve of township 43 in range 3 all west of the third meridian. Secretary-treasurer: Seager Wheeler, Rosthern, Sask.

23-A-3—Townships 45 and south half of 46 in range l, township 45 in ranges 2 and 3, township 46 in range 2 and portion east of Siskatchewan river of township 46 in range 3 all west of the third meridian. Secretary-treasurer: Wray

Peterson, Wingard, Sask.

24-A-3—North half of township 46 and township 47 in range 1, portion south of Saskatchewan river of township 48 in range 1, township 47 and portions east of Saskatchewan river of township 48 in range 2, and portions east of Saskatchewan river of township 48 in range 2, and portions east of Saskatchewan river of township 48 in range 2, and portions east of Saskatchewan river of township 48 in range 1, which manifolds a Secretary. wan river of township 47 in range 3 all west of the third meridian. Secretary-treasurer: Dennis Duffy, Lily Plain, Sask.

17-B-3—Townships 32, 33 and 34 in ranges 3 and 4 west of the third meridian.

Secretary-treasurer: L. Carson, Dundurn, Assa.

18-B-3—Townships 35 and 36 in ranges 3 and 4, portions east of South Saskatchewan river of townships 35 and 36 in range 5 and portions south of South Saskatchewan river of township 35 in range 6 all west of the third meridian. Secretary-treasorer: R. Maule, Nutana, Sask.

22-B-3—Portions not in Indian reserve of township 44 in range 3; township 43, portions east of Saskatchewan river of township 45 and township 44 including river lots in range 4, portions not in Indian Reserve of township 43 and portion east of Indian Reserve including river lots of township 44 and portion east of Saskatchewan river of township 43 in range 6 all west of the third meridian. Secretary-treasurer, George Nickel, Rosthern, Sask.

24.B-3—Townships 49 and 50 in ranges 3 and 4 west of the third meridian. Secretary-treasurer: M. Wurster, Shellbrooke, Sask.
13-C-3—Portions north and east of South Saskatchewan river of township 25 13-C-3—Fortions north and east of South Saskatchewan fiver of township 25 in ranges 5 and 6, township 26 in range 5, portion east of Saskatchewan river of township 26 in range 6 and township 26 in range 7 all west of the third meridian. Secretary-treasurer: Fred Weller, Davidson, Assa.

18-C-3—Fraction of township 36 in range 5 and portions west of Saskatchewan river of townships 35 and 36 in ranges 6 and 7 west of the third meridian. Secretary-treasurer: J. H. C. Willoughby, Saskatoon, Sask.

19-C-3—Townships 37 and 38 in ranges 5, 6 and 7 west of the third meridian. Secretary-treasurer: Paul Dekker, Saskatoon, Sask.

Secretary-treasurer: Paul Dekker, Saskatoon, Sask.

20-C-3-Townships 39 and 40 in ranges 5 and 6, portions south and east of Saskatchewan river of township 39 and portion east of Saskatchewan river of township 40 in range 7 west of the third meridian. Secretary-treasurer: George

Schultz, Osler, Sask.
21-C-3—Townships 41 and 42 in range 5, township 41 in range 6 and portions east of Saskatchewan river of township 41 in range 7, township 42 in ranges 6 and 7 west of the third meridian. Secretary-treasurer: Jacob D. Neufeld,

Waldheim, Sask.

23-C-3-Townships 45 and 46 in runges 5 and 6 west of the third meridian. Secretary-treasurer: James Moffatt, Marcellin, Sask.

18-E-3 - Townships 35 and 36 in ranges 10 and 11 west of the third meridian.

Secretary-treasurer: S. Caswell, Saskatoon, Sask.

20-E-3—Portions north and east of Saskatchewan river of township 39 in ranges 10 and 11, townships 40 and 41 in ranges 10 and 11 west of the third meridian. Secretary-treasurer: E. Hingley, Great Bend, Sask.

8-J-3—Townships 15 and 16 in ranges 13 and 14 west of the third meridian.

Secretary-treasurer:

21-J-3—Portions north and east of Saskatchewan river of township 40 in range 12 and township 41 in ranges 12 and 13, townships 42 and 43 in ranges 12 and 13 west of the third meridian. Secretary-treasurer: David Mitchell, Richard, Sask.

23-N-3—Townships 46 and 47 in ranges 17 and 18 west of the third meridian.

Secretary-treasurer: Neil Morrison, Meota, Sask.

23-P-3-Portions south of Saskatchewan river and west of Indian Reserve of township 45 in ranges 18 and 19 and township 46 in range 18, portions not in Indian Reserve of township 45 in ranges 20 and 21 and township 46 in ranges 21, and portions south of Saskatchewan river of township 46 in range 19 and portions south and west of river of township 46 in range 20 west of the third meridian. Secretary-treasurer: Walter Tebbs, Bresaylor, Sask.

24-T-3—Townships 47 and 48 in ranges 25 and 26 west of the third meridian. Secretary-treasurer: C.S. Hall, Wirral, Sask.

5-B-4-Townships 9 and 10 in ranges 2, 3 and 4 west of the fourth meridian.

Secretary-treasurer: J. Rohinson, Josephsburg. Assa.

26-B-4—Townships 51 and 52 in ranges 3 and 4 west of the fourth meridian.

Secretary-treasurer: Wm. Ashworth, Lloydminster, Sask.

24-H-4.—Townships 47 and 48 in ranges 11 and 12 west of the fourth meridian. Secretary-treasurer:

25-H-4—Townships 49 and 50 in ranges 11 and 12 west of the fourth meridian. Secretary-treasurer:

25-J-4—Townships 49 and 50 in ranges 13 and 14 west of the fourth meridian. Secretary-treasurer:

26-J-4—Townships 51 and 52 in ranges 12, 13 and 14 west of the fourth meridian. Secretary-treasurer: Hugh A. Glaspell, Vegreville, Alta.

27-J-4—Townships 53 and 54 in ranges 13 and 14 west of the fourth meridian. Secretary-treasurer: E. H. Wynn-McKenzie, Warwick, Alta.

28-J-4-Portions south and west of Saskatchewan river of townships 56 and 57 in range 12, townships 55 and 56 and portion south of Saskatchewan river of township 57 in range 13, township 55 and portions south of river of townships 56 and 57 in range 14 all west of the fourth meridian. Secretary-treasurer: A. M. Boutillier, Soda Lake, Alta.
21-M-4—Portions north of Battle river of townships 40 and 41 in range 15,

township 42 in ranges 15 and 16, portion north and east of Battle river of township 41 in ranges 16 and 17 and portion east of river of township 42 in range

17 west of the fourth meridian. Secretary-treasurer:

22-M-4-Townships 43 and 44 in ranges 15 and 16 west of the fourth meridian.

Secretary-treasurer: Fred Byrinten, Spring Lake, Alta.

25-M-4—Townships 49 and 50 in ranges 15 and 16 west of the fourth meridian.

Secretary-treasurer: Chas. N. Brisbin, Vermilion Valley, Alta.

26-M-4—Townships 51 and 52 in ranges 15 and 16 and portions east of Beaver lake of townships 51 and 52 in range 17 west of the fourth meridian. Secretary-treasurer: G. W. Abhott, Vegreville, Alta.

27-M-4—Townships 53 and 54 in ranges 15 and 16 west of the fourth meridian.

Secretary-treasurer: Peter Svorich, Kolomea, Alta.

28-M-4—Townships 55 and 56 in ranges 15 and 16 west of the fourth meridian. Secretary-treasurer: Thos. Hall, Whitford, Alta.

29-M-4-Portions south and west of Saskatchewan river of township 57 in range 15 and township 58 in ranges 15 and 16, township 57 in range 16 west of the fourth meridian. Secretary-treasurer: R. H. Mennie, Whitford, Alta. 20-N-4 –Townships 39 and 40 in ranges 17 and 18 west of the fourth meridian.

Secretary-treasurer: T. C. Barrett, Red Willow, Alta.
21-N-4—Townships 42 in range 18, portions south and west of Battle river of township 41 in ranges 16, 17 and 18 and township 42 in range 17, portions west of Battle river of township 43 in ranges 17 and 18 all west of the fourth meridian. Secretary treasurer: D. J. Ellsworth, Red Willow, Alta.

22-N-4—Portions north of Battle river and Dried Meat lake of townships 43 and 44 in ranges 17 and 18 and township 44 in range 19 west of the fourth

meridian. Secretary-treasurer: G. W. Sawyer, Ferry Point, Alta.

23-N-4—Townships 45 and 46 in ranges 17 and 18 west of the fourth meridian.

Secretary-treasurer: L. H. Lewis, Heather Brae, Alta.

24-N-4—Townships 47 and 48 in ranges 17 and 18 west of the fourth meridian, Secretary-treasurer: P. Iverson, Earling, Alta,

25-N-4—Townships 49 and 50 in ranges 17 and 18 west of the fourth meridian. Secretary-treasurer : B. P. Anderson, Bardo, Alta.

28-N-4-Townships 55 and 56 in ranges 17 and 18 west of the fourth meridian.

Secretary-treasurer: H. Belcher, Wostok, Alta.

29-N-4—Portions south of Saskatchewan river of townships 57 and 58 in ranges 17, 18 and 19 and township 57 in range 20 west of the fourth meridian. Secretary-treasurer: Theo. Nemirsky, Wostok, Alta.

30-N-4—Township 59 in ranges 16, 17 and 18, portions north of Saskatchewan

30-N-4—Township 59 in ranges 16, 17 and 18, portions north of Saskatchewan river and including river lots of township 58 in ranges 16, 17 and 18 west of the fourth meridian. Secretary-treasurer: G. H. Harper, Pakan, Alta.

22-P-4—Township 43 in ranges 19 and 20, township 44 in range 20 and portions west of Battle river of township 44 in range 19 west of the fourth meridian. Secretary-treasurer: C. J. Hanson, Edberg, Alta.

23-P-4—Township 45 and 46 in range 19 and portions north and east of Battle river of township 45 in range 20 and township 46 in ranges 20, 21 and 22 west of the fourth meridian. Secretary-treasurer: J. W. Hay, Skafse, Alta.

24-P-4—Townships 47 and 48 in ranges 19 and 20 west of the fourth meridian. Secretary-treasurer: Neele Nelson, Lake-de-May, Alta.
25-P-4—Townships 49 and 50 in ranges 19 and 20 west of the fourth meridian.

Secretary-treasurer: Robt. J. Stirrett, Bardo, Alta.

27-P-4-Townships 53 and 54 in ranges 19 and 20 west of the fourth meridian.

Secretary-treasurer: Elmer Hallberg, Ross Creek, Alta.
28.P-4—Townships 55 and 56 in ranges 19 and 20 and portions east of Saskatchewan river of township 55 in ranges 21 and 22 and township 56 in range 21 west of the fourth meridian. Secretary-treasurer: D. E. McLean, Star, Alta.
20-R-4—Townships 39 and 40 in ranges 21 and 22 west of the fourth meridian.

Secretary-treasurer:

21-R-4—Townships 41 and 42 in ranges 21 and 22 west of the fourth meridian. Secretary-treasurer: A. W. McCullough, Whitebrush, Alta.

22-R-4—Townships 43 and 44 in ranges 21 and 22 and portions not in Indian Reserve of township 44 in range 23 west of the fourth meridian. Secretary-treasurer: John G. Wilcher, Lewisville, Alta.

23-R-1-Township 45 in range 21 and portions south and west of Battle river of township 45 in ranges 20 and 22 and township 46 in ranges 20, 21 and 22 west of the fourth meridian. Secretary-treasurer: A. E. Trussler, Highland Park, Alta. 24-R-4—Townships 47 and 48 in ranges 21 and 22 and portions east of Coal lake

of townships 47 and 48 in range 23 west of the fourth meridian. Secretary-treas-

urer: E. Coleridge-Roper, Bittern Lake.

27-R-4—Townships 53 and 54 in range 21, township 53 in range 22, portions east of Saskatchewan river of township 54 in range 22 and portions south and east of Saskatchewan river of townships 53 and 54 in range 23 west of the fourth meridian. Secretary-treasurer: R. Harrison, Agricola, Alta.

28-R-4—Township 56 in range 22, townships 55 and 56 in range 23, portions

west of Saskatchewan river of township 55 in range 22 and portions north and west of Saskatchewan river of township 56 in range 21 west of the fourth meri-

dian. Secretary-treasnrer: C. S. Godhout, Lamourean, Alta.

19-S-4—Township 37 in ranges 23, 24 and 25, portions south and east of Red Deer river of township 38 in range 23 and portions south of Red Deer river of township 38 in ranges 24 and 25 west of the fourth meridian. Secretary-treasurer: W. J. H. Hampton, Coalbanks, Alta. 20-S-4—Townships 38, 39 and 40 in ranges 23 and 24 west of the fourth meridian.

Secretary treasurer: P. Russel, Bullocksville, Alta.

21-S-4—Townships 41 and 42 in ranges 23 and 24 west of the fourth meridian. Secretary-treasurer: Geo. De Graff, Earlville, Alta.

22-S-4-Townships 43 and 44 in range 26 and portions not included in Indian Reserve of township 43 in ranges 23 and 24 and townships 43 and 44 in range 25 west of the fourth meridian. Secretary-treasurer: Dr. W. Pulleyblank, Ponoka, Alta.

 $^{...}$   $^{...}$ half of township 45 in range 24 and portions west of Battle river of townships 45 and 46 in range 23 west of the fourth meridian. Secretary-treasurer: H. D. Farris, Wetaskiwin, Alta.

24-S-4—Townships 47 and 48 in ranges 24 and 25 and portions west of Coal take of townships 47 and 48 in range 23 west of the fourth meridian. Secretary-

treasurer: P. J. Mullen, Millet. Alta.
25-S-4—Townships 49 and 50 in ranges 23, 24 and 25 west of the fourth meridian.

Secretary-treasurer: Win. Douglas, Leduc, Alta.

26-S-4—Townships 51 and 52 in range 23, township 51 in range 24 and portions south and east of Saskatchewan river of township 52 in range 24 and townships 51 and 52 in range 25 west of the fourth meridian. Secretary-treasurer: James Grove, Strathcona, Alta,

27-S-4—Townships 53 and 54 in range 24, portions north and west of Saskat-27-5-4—Townships 53 and 54 in range 24, portions north and west of Saskatchewan river of townships 53 and 54 of range 25, portions south and east of Saskatchewan river of townships 53 and 54 in range 25, portion north and west of Saskatchewan river of township 52 in range 25 and portion north and west of Sturgeon river of township 54 in range 25 west of the fourth meridian. Secretary-treasurer: Francis C. Clare, Edmonton, Alta.

28-S-4—Townships 55 and 56 in ranges 24 and 25 west of the fourth meridian.

Secretary-treasurer: C. McLaughlin, Namao, Alta.

29-S-4—Townships 57 and 58 in ranges 24 and 25 west of the fourth meridian. Secretary-treasurer: Ronald Morin, Legal, Alta.

10-T-4—Townships 19 and 20 in ranges 25 and 26 and portions south of Bow river of townships 21 and 22 in range 25 and to township 21 in range 26 west of the fourth meridian. Secretary-treasurer: E. A. Daggett, Dinton Alta.

15-T-4 --Townships 29 and 30 in ranges 25 and 26 west of the fourth meridian.

Secretary-treasurer:
16-T-4—Townships 31 and 32 in ranges 25 and 26 west of the fourth meridian.

16-17-4—Townships 31 and 32 in ranges 25 and 26 west of the fourth meridian. Secretary-treasurer: John McAlpine, Sunny Slope, Alta.

17-T-4—Townships 33 and 34 ranges 25 and 26 west of the fourth meridian. Secretary-treasurer: J. H. McArthur, Knee Hill Valley, Alta.

18-T-4—Townships 35 and 36 in ranges 25 and 26 west of the fourth meridian. Secretary-treasurer: J. S. Sparks, Milverton, Alta.

19-T-4—Township 37 ranges 26 and 27, portions south of Red Deer river of the state of the secretary treasurer. townships 38 and 39 range 26, portions east of Red Deer river township 37 in range 28 and portions south and east of Red Deer river of township 38 ranges 27 and 28 and township 39 in range 27 west of the fourth meridian. Secretary-treasurer: John J. Gaetz, Red Deer, Alfa.

20-1-4-Townships 39 and 40 range 25, township 40 range 26, portions north of Red Deer river of township 38 ranges 25 and 26 and township 39 range 26 west of

the fourth meridian. Secretary-treasurer: James L. Storey, Lacombe, Alta.
21-T-4—Townships 41 and 42 ranges 25 and 26 west of the fourth meridian.
Secretary-treasurer: W. H. Johnson, Morningside, Alta.
23-T-4—Townships 45 and 46 ranges 26, 27 and 28 west of the fourth meridian.
Secretary-treasurer: L. P. Larson, Wetaskiwin, Alta.
24-T-4—Townships 47 and 48 ranges 26, 27 and 28 west of the fourth meridian.
Secretary-treasurer: R. Sheppard, Patience, Alta.
25-T-4—Township 49 range 26, 27 and 28 and portions south of river of township 50 ranges 26, 27 and 28 west of the fourth meridian. Secretary-treasurer:

ship 50 ranges 26, 27 and 28 west of the fourth meridian. Secretary-treasurer: C. J. Blounquist, Calmar, Alta.

26-T-4 — Townships 51 and 52 range 26, fractions of townships 51 and 52 ranges 27 and 28, and portions north of Saskatchewan river in township 50 ranges 26, 27 and 28 west of the fourth meridian. Secretary-treasurer: Geo. Sutherland, Spruce

Grove, Alta.

27-T-4--Townships 53 and 54 range 26 and portions not in Indian Reserve of townships 53 and 54 range 27 west of the fourth meridian. Secretary-treasurer:

William Bristow, Spruce Grove, Alta.

28-T-4 Townships 55 and 56 range 26 and portions not in Indian Reserve of townships 55 and 56 range 27 west of the fourth meridian. Secretary-treasurer: Nestor Noel, Riviere qui Barre, Alta.

29-T-4—Townships 57 and 58 ranges 26 and 27 west of the fourth meridian. Secretary-treasurer: Wm. A. Elliott, Independence, Alta. 8-W-4—Townships 15 and 16 ranges 27, 28 and 29 west of the fourth meridian. Secretary-treasurer: Jas. T. Cooper, Nanton, Alta.

9-W-4—Townships 17 and 18 ranges 27, 28 and 29 west of the fourth meridian.
Secretary-treasurer: H. G. Wright, Cayley, Alta.

10-W-4—Townships 19 and 20 and portion south of Bow river of township 21 in range 27, portions south and east of Bow river of townships 19, 20 and 21 in range 28 west of the fourth meridian. Secretary-treasurer: H. H. Wilson,

12-W-4--Townships 22 and 23 in ranges 26 and 27, south half of township 24 in ranges 26 and 27 and portion north of Bow river in township 21 ranges 26 and 27 west of the fourth meridian. Secretary-treasurer: Sanford Whitney, 27 west of the fourth meridian.

Langdon, Alta.

15-W-4—Townships 29 and 30 in ranges 27, 28 and 29 west of the fourth

meridian. Secretary-treasurer: Charles Carlin, Carstairs, Alta.

16-W-4—Townships 31 and 32 in ranges 27, 28 and 29 west of the fourth meridian.

Secretary-treasurer: Wm. L. Fischer, Olds, Alta.

17-W-4—Townships 33 and 34 in ranges 27, 28 and 29 west of the fourth meridian. Secretary-treasurer: C. E. Kenny, Olds, Alta.

18-W-4—Townships 35 and 36 in range 27, township 35 and portion east of Red Deer river of township 36 in range 28 west of the fourth meridian, and

townships 35 and 36 in ranges 1 and 2 west of the fifth meridian. Secretary-

townships 35 and 36 in ranges 1 and 2 west of the fifth meridian. Secretary-treasurer: Ed. J. Fream, Innisfail, Alta.

20-W-4—Township 40 in ranges 27 and 28, portion west of Red Deer river of township 39 in range 27 and portions north and west of Red Deer river of township 39 in range 28 west of the fourth meridian. Secretary-treasurer: Percy B. Gregson, Blackfalds, Alta.

21-W-4—Townships 41 and 42 in ranges 27 and 28 west of the fourth meridian Secretary-treasurer: T. C. King, Iowalta, Alta.

22-W-4—Townships 43 and 44 in ranges 27 and 28 west of the fourth meridian. Secretary-treasurer:

Secretary-treasurer:  $2\cdot Z-4$ —Townships 3 and 4 in ranges 29 and 30 and township 4 in range 28 west

of the fourth meridian. Secretary-treasurer: E. H. Hillier, Yarrow, Alta.
3-Z-4—Townships 5 and 6 in ranges 28, 29 and 30 west of the fourth meridian.
Secretary-treasurer: A. E. Cox, Pincher Creek, Alta.
10-Z-4—Portions west of Highwood river of township 20 in ranges 28 and 29, portion south and west of Highwood river of township 21 in range 28, portion south of Bow river of township 22 in range 28 and townships 21 and 22 in range 29 and 30 west of Highwood river of townships 21 and 22 in range 29 and 30 with the first threat the first threat the first threat thr

west of the fourth meridian; township 20 in ranges 1, 2 and 3 west of the fifth meridian. Secretary-treasurer: E. A. Hayes, Okotoks, Alta.

12-Z-4—Townships 22 and 23 in range 28, portions north of Bow river of township 21 in range 28, portion north and east of Bow river of township 21 in range 29, portion east of Bow river of townships 22 and 23 in range 29, south halves of township 24 in ranges 28 and 29 all west of the fourth meridian; portions east of Bow river of townships 23 and 24 in range 1 west of the fifth

portions east of Bow river of townships 23 and 24 in range 1 west of the fifth meridian. Secretary-treasurer: P. Rochon, Shepard, Alta.

3-A-5—Townships 5 and 6 ranges 1 and 2 west of the fifth meridian. Secretary-treasurer: A. E. Cox, Pincher Creek, Alta.

4-A-5—Townships 7 and 8 in ranges 1 and 2 west of the fifth meridian. Secretary-treasurer: R. H. Burn, Gillingham, Alta.

9-A-5—Township 17 ranges 2 and 3, portions south of Highwood river of townships 17 and 18 in range 1 and township 18 in ranges 2 and 3 west of the fifth meridian. fifth meridian. Secretary-treasurer:

10-A-5-Portions west of Highwood river of township 19 in ranges 28 and 29 west of the fourth meridian; township 19 in ranges 1, 2 and 3 and portions north of Highwood river of township 18 in ranges 1, 2 and 3 west of the fifth meridian. Secretary-treasurer:

11-A-5—Townships 21 and 22 in ranges 1 and 2 and portions between Bow and Elbow rivers of township 23 in range 1 west of the fifth meridian. Secretary-treasurer: Wm. Birney, Box 233, Calgary, Alta.

12-A-5-Portion north and west of Elbow river of township 23 in range 1, portion south of Bow river of township 24 in range 1, portions south and west of Bow river of townships 24 and 25 in range 2 and township 25 in range 3, township 24 in range 3 and east half of township 24 in range 4 all west of the fifth meridian. Secretary-treasurer: Chas. Jackson, Box 690, Calgary, Alta. 13-A-5—North half of townships 24 in range 1 and portions north and east of

Bow river of townships 25 and 26 range 1, townships 24, 25 and 26 in range 2 west of the fifth meridian. Secretary-treasurer: C. W. Perry, Box 422, Calgary,

Alta.

14-A-5—Townships 27 and 28 in ranges 1 and 2 west of the fifth meridian. Secretary-treasurer: R. L. Boyle, Crossfield, Alta.

15-A-5-Townships 29 and 30 ranges 1 and 2 west of the fifth meridian. Secretary-treasurer: M. B. Clemens, Carstairs, Alta.

16-A-5-Townships 31 and 32 ranges 1 and 2 west of the fifth meridian. Secretary-treasurer: George Price, Olds, Alta.

17-A-5—Townships 33 and 34 ranges 1 and 2 west of the fifth meridian.

Secretary-treasurer: Colin Thomson, Red Lodge, Alta.

18-A-5-Portion west of Red Deer river of township 36 in range 28 west of the fourth meridian: portions north of Red Deer river of township 36 ranges 1, 2, 3 and 4 and township 35 in ranges 2, 3 and 4 west of the fifth meridian. Secretary-treasurer: M. Sweeney, Markerville, Alta.

19-A-5-Portion west of Red Deer river of township 38 in ranges 27 and 28 and township 37 in range 28 west of the fourth meridian; townships 37 and 38 in ranges 1 and 2 west of the fifth meridian. Secretary-treasurer: L. Martin, Red

Deer, Alta. 20-A-5—Townships 39 and 40 ranges 1 and 2 west of the fifth meridian. Secretary-treasurer: J. W. Shirkey, Bentley, Alta. 21-A-5—Townships 41 and 42 ranges 1 and 2 west of the fifth meridian. Secretary-treasurer: C. H. Whitworth, Lacombe, Alta. 22-A-5—Townships 43 and 44 ranges 1 and 2 west of the fifth meridian. Secretary-treasurer:

26-A-5—Townships 51 and 52 ranges 1 and 2 west of the fifth meridian, Secretary-treasurer: Chas. Mills, Inga, Alta.

27-A-5—Townships 53 and 54 in range 28 west of the fourth meridian and townships 53 and 54 ranges 1 and 2 west of the fifth meridian. Secretary-treasurer: Ed. Steffler, Spruce Grove, Alta.

11-B-5—Townships 21 and 22 ranges 3 and 4 west of the fifth meridian. Secretary-treasurer: Wm. H. King, Millarville, Alta.

15-B-5—Townships 29 and 30 in ranges 3 and 4 west of the fifth meridian. Secretary-treasurer: G. B. Hunter, Dog Pound, Alta.

Secretary-treasurer: G. B. Hunter, Dog Pound, Alta.

16-B-5—Townships 31 and 32 ranges 3 and 4 west of the fifth meridian.

Secretary-treasurer: Walter B. Smith, Didsbury, Alta.

17-B-5—Townships 33 and 34 range 3, township 33 range 4, portion south of Red Deer river of township 35 in range 3, portion south and east of river of township 34 in range 4 and portion east of river of township 33 range 5 west of the fifth meridian. Secretary-treasurer: Nicholas Moor, Eagle Hill, Alta.

19-B-5—Townships 37 and 38 ranges 3 and 4 west of the fifth meridian. Secretary-treasurer: J. M. Craig, Markerville, Alta.

20-B-5—Townships 39 and 40 in ranges 3 and 4 west of the fifth meridian.

20-B-5-Townships 39 and 40 in ranges 3 and 4 west of the fifth meridian. Secretary-treasurer: A. Douglas, Evarts, Alta.

27-B-5—Townships 53 and 54 ranges 3 and 4 west of the fifth meridian. Secretary-treasurer: C. H. Dunn, Mewassin, Alta.

13-C-5-Township 27 ranges 5 and 6 and portions north of Bow river of township 26 ranges 5 and 6 west of the flfth meridian. Secretary-treasurer: H. Payn LeSueur, Cochrane, Alta.

Evidence of the popularity of small district organisation is shown by the large number of petitions which have been received, these petitions being, as a rule, the preparatory steps to such organisation.

At the beginning of the year the large districts were reorganised, their boundaries being made to correspond with those of the electoral districts. On account of the increased assessable area and the heavy immigration of the last few years, it was nearing the close of 1904 before all the large districts were assessed.

From large local improvement districts in 1904, local improvement taxes to the amount of \$132,643.96 were collected and the number of

receipts issued 16,646.

The sum of \$25,927.69 for arrears of taxes in small districts was collected by this branch and forwarded to secretary-treasurers.

Arrears of taxes in school districts amounting to \$13,987.53 were collected and sent to school treasurers.

These amounts were paid by cheque, the number issued to small local improvement district secretary treasurers being 2,467 and to school treasurers 1,600.

The work of correspondence in connection with these arrears, (both school and local improvement) has grown to such an extent that it comprises a large part of the duties of the branch. The failure of some secretary-treasurers to promptly forward returns from school and small local improvement districts and to notify this branch of all payments of arrears made, has entailed considerable work that otherwise would not have been necessary.

An idea of the general correspondence of the branch may be gathered from the fact that in 1904 the amount of mail matter received was 46,232 items. The amounts sent out was 124,924 items, which was composed of 21,418 letters, 22,180 receipts, 79,478 notices and circulars and 3,048 cheques.

The assessment of large districts for 1904 was as follows:

No.	District	Amount Assessir		Amou Collect		Amount Expended
	<u></u>		e.	*	e.	* c.
550	Banff	4,245		1,434	45	1,279 16
551	Battleford,	19,015		5,511		1,099 83
552	Batoche	4,671	25	2,043		1,240 33
553	Cardston	14,191		10,168		8,719 18
554	Cannington	4.712		3,510		972 45
555	Calgary, East	7,437		1,817		789 99
556	Calgary, West			2,311		1,805 88
557	Edmonton	760		190		583 61
558	Grenfell	2,090	90	1.456	71	1.133 95
	High River	6,431		996		6,311 75
560	Innisfail			1,269	37	418 21
561	Kinistino	5,197		2,586	66	1.516 03
562	Lacombe		52	3,062	22	957 50
563	Lethbridge	21,416	97	6,237		4,905 59
564	Macleod	15.193		2.183		478 13
565	Maple Creek	19,230	09	15,668	42	7,136-55
566	Medicine Hat	12,992		4,571		3,822 56
	Mitchell	2,260		377		573 65
	Moosomiu				00	400 62
	Moose Jaw	26,089		11,810	93	4.774 37
	Prince Albert	717		336		518 18
	Qu'Appelle, South	8,653	57	8,387	40	2,625 22
572	Qu'Appelle, North	9.118		5,120		1,853 37
573	Regina, North	7,655		2,896	24	719 82
574	Regina, South	5,306		5,340		2.814 72
575	Saltcoats	6,552	39	2,552	12	715 05
576	Saskatoon	11,800		7,375	17	2,970 32
577	Souris	7,300	46	10,830		950 33
578	Strathcona		93	2,434		1,015 79
579	St. Albert			317		665 75
580	Victoria			627		2,230 30
581	Wetaskiwin	7,439		2,858		1,241 68
582	Whitewood			485		407 63
583	Wolseley	530	88	382	09	1,377 01
584	Yorkton			5,441		1.030 56
	Totals	269,647	85	132,643	96	70,030_07

#### VILLAGES.

Indicative of the growth in population, as well as the common desire for self government, is the number of villages which have been formed and also the towns which have been established. The latter are as follows: Oxbow, Qu'Appelle. Battleford, Fort Saskatchewan, St. Albert, Ponoka, Okotoks. A complete list of the villages established up to the end of 1904 is given below:—

NAME OF VILLAGE	NAME OF OVERSEER	DATE OF ESTABLISHMENT
Alaneda. Balgonie Balcarres Blackfalds. Blairmore Bowden Broadview Carievale Carlyle Carndoff	George Hutton John H. Murphy James McNicol William A. Beebe James I. Brewster Richard Robinson M. O. Hedley H. H. Rendall	December 29, 1896 [April 20, 1903] November 18, 1904 June 17, 1904 September 3, 1901 June 17, 1904 December 23, 1898 March 11, 1903 March 13, 1902 March 29, 1899

NAME OF VILLAGE	NAME OF OVERSEER	DATE OF ESTABLISHMENT
Carstairs	Robert Scott	May 15, 1903
Cayley	G. W. Wickens	August 5, 1904
Unurenbriage	James Heasman	September 17 1903
Claresnorm	William Moffat.	May 30, 1903
Cochrane	Dan J. Bruce	June 11, 1903
Coleman	. H. N. Galer	January 7, 1904
Craik	James Parks	October 20, 1903
Davidson	Robert H. Blackmore	March 7, 1904
Didsbury	Geo. B. Seysmith	September 94 1901
Drinkwater	William Ansley. Thomas A. Bird Geo. Wrightson	June 7, 1904
Duck Lake	Thomas A. Bird	December 23, 1898
Esterhazy	Geo. Wrightson	December 3, 1903
Estevan	L. A. Duncan	November 2, 1899
Fleming.	W. Lemon	Luly 2 1896
Forget	Adolph Huel. Jarvis T. Westgate.	November 16, 1904
Francis	Jarvis T. Westgate	October 24, 1904
Frank	J. H. Farmer	September 3, 1901
Frobisher	David McKnight	July 4. 1904
Gainsboro	J. J. Sadler	May 23, 1894
Gleichen	V. I. Beaupre	January 24, 1899
Glen Ewen	V. I. Beaupre	March 23, 1904
Grenfell	Reginald Gwynne	April 12 1804
Hague	C. P. Unrub William Scramlin. L. R. Adams	August 25, 1903
Halbrite,	William Scramlin	February 26, 1904
Heward	L. R. Adams	November 18, 1904
High River	IW E I Holmes	Dagambar 5 1001
Innisfail	August Kremer	December 15, 1899
Irvine	Henry Vockeroth	September 17, 1905
Langenburg	James Nixon	March 27, 1903
Leavings	R. Walker Jell	July 12, 1904
Leduc	William Mogg	December 15, 1899
Lemberg	William Mogg	July 12, 1904
Lille	J. P. Guimond	February 22, 1904
Lloydminster	R. N. Blackburn	November 24, 1903
Magrath	John Lye Gibb	August 20, 1901
Macoun	E. Rollins. Philip Cooke Thomas Clarke	October 14, 1903
Manor	Philip Cooke	April 15, 1902
Melfort	Thomas Clarke	November 4, 1903
Milestone	R. B. Jones	March 11, 1903
Millet	R. B. Jones W. F. Blades Philias Gandette John F. Parrish	June 11, 1903
Morinville	Philias Gandette	August 24, 1901
Mountain View	John F. Parrish	February 13, 1902
Nanton	W. A. Chisholm	June 22, 1903
North Portal	E. R. MacPhee	November 16, 1903
Mutana	W. J. Brumpton	October 10, 1903
Oslan	Tuesk Pleasure	May 20, 1890
Danhald	Jacob Kliewer. N. Stewart	April 9, 1904
Pense	D. C. M. D	May 4, 1904
Pinse	Dr. G. M. Ramsey	March 7, 1904
Fact On'Assault	A. R. Dempster William M. Thomson R. Douglas	August 18, 1898
Podrom	William M. Thomson	June 2, 1898
Dinawida	T. M. Lawadaa	July 9, 1904
Pagangilla	J. M. Lowndes	
	A. H. R. Bastien	March 23, 1904
Rosenroll		November 16, 1904
Rouleau	A. E. Westbrook	July 22, 1903
Saltcoats	A R Landon	
Stafford	A. B. Lander	April 4, 1894
Standin	Peter Jones	Way 7, 1901
	Sydney Cooper	
Stirling	Robert J. Withers	September 5, 1901
Stoughton	David Donnelly	February 4, 1904
Swift Current	Fred Jones	repruary 4, 1904
Tantallon	Joseph E. Paynter Joseph W. Sprott	JUHE 17, 1894 Toly 99-1002
	LIBSPIN IV SMINIT	J 111 V 22. 1990

#### DRAINAGE.

During the season of 1904 four of the steam ditching machines have been in operation and a total of 45,146 ft. of drainage has been completed.

The following schedule will show where the machines have been operated and the work accomplished by each.

#### STEAM Ditching Machines.

No. 1—Completed 10,900 ft. on Drain No. 110 between Strathcona and Ellerslie No. 2—Completed 14,850 ft. on Drain No. 4 known as Favel lake drain. No. 3—Completed 8,175 ft. on Drain No. 30 east of Lacombe to drain into

Wolf creek.

No. 4 - Completed 11,221 ft. on Drain No. 96 east of Yellow Grass. No. 5—At Prince Albert (not in operation).

#### IRRIGATION OFFICE.

Staff	 (1 assistant engineer. 1 draughtsman. 1 clerk of records and correspondence clerk.
	1 stenographer (temporary).

The work of the Irrigation Office is embodied in the following schedule:

2,310
3,221
2,000
85
13
179
15
610

During the past year many enquiries regarding irrigation in the Territories have been received, especially from settlers from the United States who have farmed lands under irrigation, and in consequence a large number of applications for water rights were filed and dealt with.

The Canadian Pacific Railway Company have proceeded with the construction of their scheme to divert water from the Bow river near Calgary. Substantial headworks have been constructed, and several contracts for excavation of the main irrigation canal completed.

The Alberta Railway and Irrigation Company (successors of the Canadian North West Irrigation Company) have also made extensive additions and improvements to their scheme for the diversion of water from St. Mary river, to provide for the reclamation of a large tract of land in the south-eastern portion of Alberta.

Settlement in the Territories during the past year has vastly increased, and is particularly noticeable in what is known as the semi-arid region, so sparsely settled heretofore, and the work of the Irrigation Office has increased proportionately.

Your obedient servant,

JOHN STOCKS.

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# Operated by George Gibson.

This mine is situated about six miles from Grassy Lake and is entered by means of a slope.

## Sunlight Coal Company.

This mine is situated about 2½ miles south of Grassy Lake and is entered by means of a slope and worked by means of a modification of the long wall system. The coal is 3 ft. 3 ins. in thickness with a good roof.

# Mine Operated by A. C. Gage.

This mine is situated about 12 miles south of Bow Island and is entered by means of a shaft. The coal is 26 ins. in thickness and is worked on the room and pillar system.

## Mine Operated by G. W. Hines.

This mine is situated about 12 miles south of Bow Island and is entered by means of shafts. The coal seam is thin and is worked on the room and pillar system.

# Mine Operated by Nat. Walwork.

This mine is situated about four miles north of Bow Island and supplies local demand only.

#### Mine Operated by David Long.

This mine is situated about six miles north of Bow Island, the seam being 2 ft. 10 ins. in thickness.

#### Mine Operated by W. J. Manary.

This mine is situated about 12 miles north of Bow Island and supplies local demand only.

# Mine Operated by Julius Lavenne.

This mine is situated about 11 miles north of Bow Island and is worked on a small scale.

# Mine Operated by F. Freidenberg.

This mine is situated about 25 miles south of Seven Persons and is worked on a small scale.

#### Mine Operated by Stephen Schmidt.

This mine has no railway connections and is only employing about four men, the output being sold to the farmers in the district.

#### Mine Operated by Samuel Brockhouse.

This mine, which is operated on a small scale, is situated about two miles from Milk River and is entered by means of a drift.

## Mine Operated by Joseph Oborn.

This mine is situated about four miles from Milk River and is being operated on a very small scale.

## Mine Operated by D. G. McKay.

This mine is situated about five miles from Milk River and is operated on a small scale.

## Mine Operated by Duncan Kippen.

This property is worked by stripping the surface, as there is only 8 ft. of cover over the coal.

# Iron Spring Coal Mine.

This mine is operated by George Heighes and situated about 25 miles north of Lethbridge. It is entered by means of a drift and is worked on the room and pillar system, the coal being hoisted by means of an incline on the surface to the tipple.

#### Bathurst Coal Company, Limited.

Authorized Capital: \$20,000.000.

President: A. T. Aithens.
Directors: A. T. Aithens, W. Sloan, A. J. McGuire and W. H. Church.
Sec.-Treasurer: W. H. Church.
Manager: A. J. McGuire.

This mine is situated about one mile north of Diamond City and is entered by means of a drift.

The coal is hoisted by means of a gasoline engine up an incline pitching at 25 degrees on the surface to the tipple.

There are no railway connections, the output being hauled in wagons to the spur track at Diamond City.

The plant at present is as follows: Engine house, built of wood and accommodates a 25 h.p. gasoline hoisting engine, a wooden tipple with bunker capacity of 25 tons, blacksmith's shop, carpenter's shop and storehouse.

#### EDMONTON DISTRICT

## MR. ELIJAH HEATHCOTE, DISTRICT INSPECTOR OF MINES, WETASKIWIN.

#### The Dawson Coal Co., Limited.

Authorized Capital: \$30,000.00. President: Richard Gerard. Vice-President: John Henderson.

Directors: H. J. Dawson, J. D. Hyndman and Joseph Hostyn.

Secretary: Chas. A. Hyndman. Head Office: Edmonton, Alta. Mine Office: Edmonton, Alta.

General Manager—Chas. A. Hyndman. Mine Manager: J. A. McLenhan.

A three-compartment shaft, 6 ft. 6 ins. by 15 ft. 8 ins., has been sunk to the coal a distance of 112 ft. A tipple capable of handling 500 tons per day has been erected. A considerable amount of work has been done underground, the main roadways having been enlarged to allow for horse haulage. These roads have all been laid with 12 lb. steel.

#### The Humberstone Coal Company.

Head Office: Edmonton. Mine Office: Clover Bar.

General Manager: E. E. Brewer. Mine Manager: David Jones. Master Mechanic: James Cheyns. Pit Boss: William Duggan.

This company controls 170 acres of coal lands near Clover Bar.

A tipple has been erected capable of handling 400 tons per day, and a shaft fitted up with self-dumping cages. A 60 h.p. boiler and one 80 h.p. boiler have been installed, and a single stage air compressor and fan of the Waddle type capable of producing 12,000 cubic feet of air per minute when running at 100 revolutions has been also installed.

It is intended to have a spur track put into this mine from the main line of the Grand Trunk Pacific Railway.

Two rectangular shafts have been sunk on this property, each 11 ft. 6 ins. by 6 ft. 6 ins. During the past year the hoisting shaft has been relined with 2 in. by 10 in. lagging and 4 in. by 6 in. sets.

#### Edmonton Standard Coal Company, Limited.

Authorized Capital: \$500,000,00. President: H. Waddington. Vice-President: G. E. Ellis General Manager: William Munns. Head Office: Toronto, Ont. Mine Office: Edmonton. Mine Manager: F. B. Smith.

Pit Boss: D. Morris.

A large amount of development work has been done at this mine during the past year, and in order to deal with the water in different parts of the mine, collecting pumps have been installed.

The output from this mine is delivered by teams in the City of Edmonton.

# The Great West Coal Company, Limited.

Authorized Capital: \$150,000.00.

President: James C. Dunn. Directors: James C. Dunn, Alex. C. Dunn and W. S. Cupple.

Sec.-Treasurer: W. S. Cupple.

Head Office: Edmonton. Mine Office: Clover Bar.

General Manager: Alex. C. Dunn.

Mine Manager: Alex. C. Dunn.
Mining Engineer: John Russell.
Master Mechanic: A. Biamonte.
Pit Bosses: P. J. Murphy and T. Strickland.

This company controls 1,138 acres of coal lands, the thickness of the coal varying from 4½ ft. to 7½ ft.

During the past year two and a half miles of track were laid from the main line of the Grand Trunk Pacific Railway, near Clover Bar, to the mine.

Two shafts are sunk on the property to the coal which was reached at a depth of 180 ft. The hoisting shaft is 14 ft. by 91/2 ft., and the air shaft is 9 ft. by 6 ft. A'tipple has been erected capable of handling 1,000 tons of coal per day and is fitted with rotary dump and two shaker screens. The hoisting engine is 16 in. by 30 in., steam being supplied by two Robb-Mumford boilers and two Waterous boilers of 110 h.p. each. An 18 in. duplex air compressor manufactured by A. T. Green of Rothersham, England, and driven by a 191/4 in. by 36 in. duplex steam engine, has been installed for the purpose of supplying air for coal cutting machines. A Schiele fan capable of producing 250,000 cub. ft. of air per minute when running at 315 revolutions per minute is being installed and will be coupled up to a 16 in. by 24 in. engine by means of a belt. A 37 k.w. generator is also being installed.

This plant was erected in the early part of the past year, but was completely destroyed by fire during the month of May and has just been rebuilt again.

#### Clover Bar Coal Company, Limited.

Authorized Capital: \$500,000.00. President: H. E. Rogers.

Vice-President: J. J. Milledge.

Directors: H. E. Rogers, J. J. Milledge and W. H. Robertson.

Secretary: J. F. Hunter. Treasurer: H. H. Robertson. Head Office: Edmonton. Mine Office: Clover Bar. General Manager: J. F. Hunter. Mine Manager: David Jones. Pit Boss: W. Jlnks.

This company has 813 acres of coal lands, near Edmonton, and are operating a seam of lignife coal 7 ft. thick. The mine is connected to the main line of the Grand Trunk Pacific Railway by means of a spur track about 3,000 ft. long. The shart on this property is 85 ft. in depth and is 14 ft. by 7 ft., the hoisting engine being 14 m. by 30 in.

#### Alberta Coal Mining Company, Limited.

Authorized Capitai: \$250,000.00. President: James L. Beil. Vice-President: W. L. Carter.

Managing Director: George S. Montgomery

Secy. Treas: George S. Montgomery.

Directors: James L. Bell, W. L. Carter and George S. Montgomery.

Head Office: Edmonton. Mine Manager: C. C. Richards.

Pit Boss-Gus Ostheidt.

This company controls an area of 320 acres of coal lands, and are working a seam 71/2 ft. in thickness. The plant is connected to the Canadian Northern Railway by means of a spur track.

Several buildings have been erected during the past year and a considerable amount of development work done. The main entry has been driven a distance of 1,600 ft. and is laid with 12 lb. steel rails. The mine cars have a capacity of two tons each.

#### The Cardiff Collieries, Limited.

Authorized Capital: \$700,000.00.

President: Lieut.-Col. J. W. del O'Grady.

Vice-President: Andrew Kelly.

Managing Director: J. W. del O'Grady.
Directors: J. W. del O'Grady, Andrew Keily, D. L. Cameron, W. R. Beli, H. H. Chown, J. C. Gage and W. R. Russell.

H. H. Chown, J. C. Gage and W. R. Ru Secretary: W. E. Brown. Treasurer: J. C. Gage. Head Office: Winnipeg, Man. Mine Office: Cardiff General Manager: G. H. Eaton. Mine Manager: F. B. Smith. Pit Boss: William Gilliland.

The seam of coal being worked on this property is 14 ft. in thickness with about 14 ft. of cover over it. A slope was driven from the surface to the coal and extended up by means of trestle work to the tipple. The tipple is fitted with Jeffrey shaking screens connected to a steam engine by means of a belt. The coal is hauled up the incline to the tipple by means of the creeper rope haul. A box car loader has been installed during the past year.

### Battle River Collieries.

President: O. H. Anderson. Vice-President: A. S. Rosenroli

Mine Office: Rosenroii. Pit Boss: T. L. Parsons.

This company controls an area of 3,200 acres of coal lands, and is operating a seam of lignite coal which is 8 ft. in thickness. The plant is connected to the Canadian Pacific Railway by means of a spur track 2,500 feet in length.

Two rectangular shafts have been sunk to the coal which was reached at a depth of 163 ft. The tipple is capable of handling 400 tons per day. All coal is mined by means of four Sullivan compressed air machines, the compressed air being produced for this purpose by a Sullivan air compressor.

## The Spicer Coal Company, Limited.

Authorized Capital: \$100,000.00.

President: John C. Bell.

Vice-President: Jas. D. McDonald, Managing Director: John Spicer

Directors: John C. Bell, J. D. McDonald, John Spicer, T. H. McCallum,

A. M. McIntyre and R. T. Cowan. Secretary: T. K. McCallum.

Treasurer: John Spicer.
Head Office: Saskatoon, Sask.
Mine Office: Dinant.

Mine Office: Dinant. General Manager: John Spicer.

Pit Boss: Jesse Horn.

The output from this mine is hauled to the Grand Trunk Pacific Railway by means of teams, as there are no railway facilities. The mine is being operated on a small scale only, but during the present year it is intended to carry on considerable development work.

# Security Coal Mines Company, Limited.

Authorized Capital: \$1,000,000.

President: Sir James Grant.

Vice-President: William C. Dunn.

Secretary: Chas. E. Merwin. Treasurer: Chas. E. Merwin.

Directors: Sir James Grant, George G. Armstrong, George Harcourt, Chas.

E. Merwin and William C. Dunn.

Head Office: Edmonton. Mine Office: Edmonton.

This company controls 880 acres of coal lands. It is proposed in the future to build a spur track from the mine to the Grand Trunk Pacific Railway. The mine so far has only been worked intermitently and on a small scale. At present there is no machinery.

#### St. Albert Collieries, Limited.

Authorized Capital: \$750,000.00 President: E. B. Greenshields. Vice-President: H. A. Lovett. Secretary: G. F. Gyles.

General Manager: Charles Fergie.

Directors: E. B. Greenshields, H. A. Lovett, R. Brutinel, I. W. McConnel, Hon. Robert Mackay.

Head Office: Montreal, Que.
Mine Office: St. Albert.
Mine Manager: E. Ashburner.

The property controlled by this company is situated about eight miles north of Edmonton. During the year 1911 two rectangular shafts were sunk to a depth of 84 ft., but had to be abandoned owing to sand and water being encountered. It was then decided to sink a circular shaft lined with concrete, and a contract was let to the Foundation Company of Montreal and New York. This shaft is now down a distance of 205 ft. It was commenced with an inside diameter of 30 ft. with concrete walls 5 ft. thick. A V-shaped cutting edge was put in and as the concrete was built above it, this edge gradually sank. The first portion of the sinking was successfully carried down through the sand bed to the blue clay which divided this bed into two portions. The shaft was then

sunk in rectangular form and is 13 ft. 8 ins. by 13 ft. 4 ins. The shafts have still about 100 ft. to go to reach the coal.

The plant is connected to the Canadian Northern Railway by means of a spur track.

#### The Pacific Pass Coal Fields, Limited.

Authorized Capital: \$5,000,000.00.

President: E. B. Greenshields. Vice-President: Hon. Robt. Mackay.

Managing Director: Charles Fergie.

Directors: N. Curry, John T. Ross, H. A. Lovett, A. H. Cook, William M. Macpherson, J. G. Scott, Hon. P. A. Choquette, Paul A. Normand and A de Bernis.

Sec.-Treasurer: Samuel T. Mains. Head Office: Montreal, Que. Mine Office: Fergie, via Bickerdike. Mine Manager: P. Christianson. Mechanical Engineer: A. B. Carr.

Pit Boss: W. G. Heeley. Fire Bosses: Allan Hamilton and Michael Joyce.

This company controls 40,000 acres of coal lands, which contain six workable seams of coal, giving a total thickness of 108 ft. The measures are lying at an inclination of 25 degrees and the strike of the seam is southeast. The mine is connected to the Alberta Coal Branch of the Grand Trunk Pacific Railway by means of a spur track.

A timber trestle has been built connecting the mines on the north and south sides of the river, the coal being brought to one tipple from both mines. The tipple which is fitted with the cross-over dump is capable of handling 1,000 tons per day.

Five boilers of 100 h.p. capacity each are installed, also a Sirocco fan capable of producing 15,000 cub. ft. of air per minute running at a speed of 150 revolutions per minute. Safety lamps of the Wolfe pattern are used throughout this mine. Monobel is used for blasting and all shots are fired by means of electric batteries.

#### Mountain Park Coal Company, Limited.

Authorized Capital: \$1,500,000.00.

President: C. J. Heyland.

Directors: C. J. Heyland, J. C. C. Bremner, L. W. Jones and N. M. Thornton.

Secretary: F. B. Macmalim. Head Office: Edmonton.

Mine Office: Mountain Park Collieries. Engineer: L. E. Drummond.

Master Mechanic: E. Watson. Manager: J. Derbyshire.

Fire Bosses: James Crowder and Wm. Eccleston.

This company controls 6,000 acres of coal lands, containing 4 seams of good bituminous coal. These seams are 6 ft. 6 ins., 4 ft. 6 ins., 3 ft. and 20 ft. in thickness respectively, and are pitching at an inclination of about 30 degrees. The strike of the seams is N. 70 degrees E.

This plant is being connected to the Alberta coal branch of the Grand Trunk Pacific Railway by means of a spur track, which is being built from mile 37. Ten miles of this spur have been built and it is expected that it will be completed during the early part of the present year. Three 50 h.p. boilers have been installed, also one 75 k.w. generator. Levels have been driven in Nos. 1, 2 and 3 seams for a distance of about 450 ft., the output at present being put to stock.

Safety lamps are used throughout these mines. Monobel is used for blasting and all shots are fired by means of electric batteries.

#### McLeod Collieries, Limited.

Authorized Capital: \$100,000.00. Managing Director: Jas. A. Collins.

Directors: J. A. Collins, John A. Hamilton, George B. Henwood and S. B.

Stowe.

Sec.-Treas: S. B. Stowe.

Head Office: Edmonton. Mine Office: Mile 37, Alberta Coal Branch.

Engineer: Chas. H. Colgrove. Pit Boss: J. A. Macdonald.

This company controls 2,192 acres of coal lands which contain seams of a bituminous nature varying in thickness from 6 ft. to 30 ft. and pitching at an inclination of about 60 degrees.

A tipple capable of handling 1,000 tons of coal in ten hours has been erected, the coal being hauled to the tipple by means of a slope by tail rope haulage. The seam at present being worked is 12 ft. in thickness.

### The Yellowhead Pass Coal and Coke Company, Limited.

Authorized Capital: \$1,000,000.00. President: M. J. O'Brien. Vice-President: M. Doherty.

Managing Director: G. H. Richardson. Secy.-Treas: F. W. Rous.

Head Office: Montreal, Que. Mine Office: Bickerdike. General Manager: J. R. Roaf. Mine Manager: F. B. Smith.

Master Mechanic: H. Ryan. Pit Boss: Thomas Mather.

Fire Bosses: D. Archibald, D. Ludbrook and J. W. Kerr.

This company controls 8,515 acres of coal lands. The mine is opened out on each side of a creek and a trestle built across connecting the two mines. The tipple is capable of handling an output of about 500 tons per day. Slopes are driven a distance of about 2,000 ft. in the coal on each side of the creek.

Safety lamps of the Wolfe pattern are used throughout the mines, and all shots are fired by means of electric batteries.

# North Alberta Coal Syndicate, Limited.

This company controls 5,000 acres of coal lands in Jasper Park, and during the past year have done a considerable amount of prospect work. Four workable seams of a good bituminous coal have been found varying in thickness from 4 ft. 6 ins. to 14 ft. and pitching at an inclination of 65 degrees.

It is expected that this mine will be connected with the Grand Trunk Pacific Railway during the present year by means of a spur track 5 miles long. Tunnels have been driven in the 14 ft. and 10 ft. seams for a distance of 500 ft. each.

#### Jasper Park Collieries, Limited.

Authorized Capital: \$2,500,000.00. President: Andrew Laidlaw. Vice-President: J. L. Cote.

Managing Director: Andrew Laidlaw.

Directors: Andrew Laidlaw, M. H. Alworth, J. G. Short, H. B. Round, J. L.

Cote and R. H. Morris.

Secretary: H. E. Pearson. Treasurer: R. J. Maxwell. Head Office: Edmonton. Mine Office: Pocahontas. General Manager: R. H. Morris.

Mine Manager: Edwin Sparrow. Engineer: G. H. Morse. Master Mechanic: Mike Saunders.

Pit Boss: Edwin Sparrow. Fire Bosses: Alex. Scott, A. J. Brown and D. J. Gwilliam.

This company controls 10,240 acres of coal lands, containing three workable seams varying in thickness from 8 ft. to 12 ft. and pitching at an inclination of 56 degrees.

The plant is situated on the main line of the Grand Trunk Pacific Railway in Jasper Park. A tipple capable of handling 1,500 tons per day has been erected during the past year and fitted with cross-over dump and shaker screens. Four 150 h.p. return tubular boilers of the Leonard type have been installed, also generators. A Robb steam engine 11 by 12 is used for driving these generators.

A tunnel 2,200 ft. in length has been driven to connect the workings to the new tipple. This will also be the means of giving a much greater lift of coal. Difficulties were encountered in driving this tunnel, as 400 ft. of it had to be driven through gravel heavily impreg-

A Sheldon fan capable of producing 22,000 cub. ft. of air per minute when running at 200 revolutions per minute, has been installed.

Safety lamps of the Wolfe pattern are used throughout the mine, and all shots are fired by means of electric batteries.

# Pembina Coal Company.

Authorized Capital: \$1,500,000.00. President: H. M. Evans. General Manager: M. L. Hyde, Mine Manager: J. E. Roberts. Master Mechanic: Chas. Brenton.

The holdings of this company are situated west of the Pembina river, 60 miles from Edmonton on the main line of the Grand Trunk Pacific Railway.

Two rectangular shafts 12 ft. by 18 ft. have been sunk in the centre of the property and reach the seam at a depth of 265 ft. The coal seam has a total thickness of 24 ft., of which 8 ft. 6 ins. is being worked. The system adopted consists of four main entries running north and south with cross entries east and west and panel entries taken off these parallel to the mains.

The tipple is electrically driven and lighted and is complete with rock, local coal and boiler coal bins.

The hoisting engine-room consists of a frame building and is equipped with an 18 in. by 36 in. first motion Linchfield hoist with two 6ft. dia. by 28 in. cylindrical drums and overwinding device.

In the engine-room there is a 65 k.w. 250 v.d.c generator driven by a 12 by 12 Ideal engine. A 250 k.w. mixed pressure turbine will be installed in the near future and exhaust steam from the hoist will be carried through a regenerator to the turbine.

The boiler and wash-room are in a combination frame building. Two 150 h.p. tubular boilers, 150 lb. pressure are installed. One 7½ by 4½ by 10 Platt duplex feed pump and one Stillwell open feed water heater are also located in the boiler-room. The wash-house is equipped with shower baths and chain hangers for the clothes.

The machine shop and supply house are in one building. The shop tools are electrically driven and consist of a combination saw, pipe and bolt machine, 20 in. drill, grindstone, emery wheel, 100 lb. hammer and hack saw, besides forges, etc.

The coal deposits in the district tributary to the main line of the Grand Trunk Pacific Railway are being opened up and developed by six different companies, namely: Jasper Park Collieries, Limited; North Alberta Coal Syndicate, Yellowhead Pass Coal and Coke Co., Limited; Pacific Pass Coal Fields, Limited; Mountain Park Coal Company, Limited and the Macleod Collieries, Limited. Practically all these mines are now equipped with surface plants capable of handling from 800 to 1,500 tons of coal per day each.

The Alberta coal branch of the Grand Trunk Pacific Railway, which leaves the main line of this railway at Bickerdike, is completed to mile 37, where branch lines are being built from this point in different directions to the mines operated by the Yellowhead Pass Coal and Coke Company, Limited, Pacific Pass Coal Fields, Limited and the Mountain Park Coal Company, Limited.

The Jasper Park Collieries, Limited, is situated 83 miles west of Edson on the main line of the Grand Trunk Pacific Railway, and is being developed on the south side of the railway on an extensive scale. It is the intention of this company to build during the present year a plant on the Canadian Northern Railway on the north side of the river, which will be capable of handling 1,500 tons per day also.

Eight miles east of Jasper Park Collieries, is situated the property operated by the North Alberta Syndicate, Limited. A railway has been surveyed to this plant from Prairie Creek on the Grand Trunk Pacific Railway Company, and will probably be built during the present year.

The property owned by the Pembina Coal Company, Limited, is situated 60 miles west of Edmonton on both the Grand Trunk Pacific Railway and the Canadian Northern Railway, and spur tracks built from each of these railways into the plant.

In the district around Edmonton, a large number of small mines each producing from 10 to 150 tons of coal per day, have been operated and their outputs hauled into the City of Edmonton by teams. These mines are, however, gradually being replaced by mines which are being operated on a larger scale. This is due to the fact that owing to the large amount of railway extension which has been going on the output from these larger mines can now be hauled into the city by railway instead of by teams and thus a cheaper coal can be put on the market.

#### WORK OF INSPECTION.

The district inspectors have made visits of inspection to the different mines in their respective districts as often as possible and have investigated the causes of all fatal and serious accidents and attended all inquests which have been held, and have also, as far as practicable, had the causes of these accidents removed.

Safety lamps are used in all the mines in the bituminous and anthracite coal fields, and in several of the mines in the lignite coal fields, and only explosives which are on the British Permitted List are allowed to be used in these mines. Loose black powder is used in most of the mines in the lignite fields except where compressed black powder is being used and which is giving very satisfactory results.

All shots are fired by means of electric batteries in the bituminous and anthracite coal fields whether gas has been found or not. Shot-firing has also been still further reduced, with the result that a better marketable coal is now being produced. The change in the method of shot-firing and the reduction in the number of shots fired, has, I believe, played an important part in reducing the number of accidents. Very strict measures are being taken by the inspectors to stop all shooting off the solid.

Telephones are installed in the more important mines in the Crow's Nest Pass district and are proving of great service, both in assisting the management of the mine and in getting assistance should an accident occur.

Application was made during the year by the West Canadian Collieries, Limited, Bellevue, for permission to extract the pillars between chute Nos. 45 and 81, but this has been refused owing to the danger of caving, causing explosions by sparks resulting from falls of roof igniting any gas which might accumulate in that portion of the mine.

With reference to the method of working mentioned in my Annual Report for the year 1911 as having been adopted during that year in the shaft mine operated by the Canadian Coal Consolidated, Limited, near Frank, and which I stated I did not approve of, I have to inform you that this method has been abandoned and the angle system again introduced.

A commencement has now been made to move the Town of Frank from the danger zone to a point about half a mile further west, and it is expected that all buildings will be moved from the old townsite within the next few months.

#### MINE RESCUE STATIONS.

During March, 1912, a Mine Rescue Station was installed and equipped at Blairmore on the Crow's Nest Pass branch of the Canadian Pacific Railway.

This station, which is temporary, was equipped with the Fleuss type of apparatus, after very careful consideration.

The equipment consists of:

Eleven apparatus of the Proto type. Six apparatus of the Salvator type. Two oxygen compression pumps. Two Draeger pulmotors. One oxygen reviving apparatus. One animal tester. Twelve electric hand lamps. One rectifier for charging lamps. One meter for testing reducing valves.

The oxygen compression pumps are used for charging the small cylinders from the storage tanks. There are thirty storage tanks, each having a capacity of 100 cubic feet of oxygen.

The twelve electric hand lamps are each capable of holding a charge sufficient to last seven hours.

The station is also equipped with a large number of spare parts to replace any defective or worn out portions of the apparatus. There are also 3,500 pounds of caustic soda kept in reserve at all times.

Mr. Andrew A. Millar was appointed superintendent of this station, his duties being to instruct and train men how to render efficient aid with the apparatus in case of accidents. The candidates for training are divided into teams of five, the training consisting of a thorough knowledge in the use of the apparatus and its various parts, together with a practical course in vitiated atmosphere. The ordinary course lasts at least six days and in several cases this may be extended if the superintendent is of the opinion that the training has not been sufficient. The training takes place partly in the Blairmore mine of the West Canadian Collieries, Limited, the management of which has kindly placed the use of same at our disposal for this purpose, and partly in the smoke chamber at the Rescue Station. The candidates for training are chosen from the various mines, but before they are allowed to participate they have to undergo a medical examination, which is carried out by the various mine doctors who have kindly volunteered to examine candidates for this purpose. It is pleasing to note that no accidents have yet occurred to any of the wearers of the apparatus.

The schedule of training is as follows:

FIRST DAY—Explanation of apparatus by the superintendent; dismantling and assembling the apparatus (Proto & Salvator) by the

members of the team; the application of the Pulmotor and reviving apparatus; the use of the animal air tester in mines after an explosion or mine fire; description of the electric lamp used in conjunction with the rescue apparatus and the application of the compression pump for recharging the cylinders of apparatus from storage tank.

Second Day—Members of team wear the apparatus for one and a half hours while walking a distance of 3,000 feet and ascending a vertical height of 160 feet, each member sawing four ends of a  $2\frac{1}{2}$  in. slab, after which they recharge apparatus.

THIRD DAY—Two hours in smoke chamber in strong sulphur fumes where they are occupied in sawing props, erecting brattice and props and carrying rock, each member making ten trips through tunnel and overcast, the temperature of the room being on different occasions over 100 degrees Fah.

FOURTH DAY—Two hours spent in mine, the distance travelled underground being 6,000 feet, part of which consists of ascending a roadway which is 450 ft. in length and pitching at an inclination of 45 degrees.

FIFTH DAY—The work done on the third day is repeated and the team is also instructed how to apply the Salvator in case of accident. A portion of the time is also spent in wearing the Salvator.

Sixth Day—Trip through the mine repeated, the team wearing the apparatus for three hours and the distance underground increased to 7,500 ft.

Training in accordance with the above schedule was commenced on March 18th, 1912. Sixty men have undergone the full course of training since the station was opened and a considerably larger number have put in a few days and then discontinued for various reasons. At times considerable difficulty has been experienced in inducing men to undergo the course of training.

The following list comprises the names of the various persons and the mines at which they were employed, who have undergone the complete first course of training:

#### McGillivray Creek Coal and Coke Company, Coleman.

~		
T. Horne.		George Kellock.
T. Homer,	,	Alex. B. Hunter.
Emile LeBlanc.		Peter Allen.
James H. Moore.		A. G. McAuley.
T Parry .		

# International Coal and Coke Company, Coleman.

W. A Davidso	n.			D. A.	Macauly
M. Morrison.		* .*	٠	I. The	
W. Ashurst.				R. Ke	err.
D. Davies.				· W. C.	Allen.
J. Tompson.					

# West Canadian Collieries, Limited (Blairmore).

Raoul Green.			J. K. Miller.
S. Shone			J. McAndrew.
L. P. Roberts.			A. Burmis.
J. Bilteryst.			O. Morgan.
A. Parker.			R. G. Foot.
W. McVey.			M. G. Neyrinck
K G Campbell	•	· · · v	1 4 A

### West Canadian Collieries, Limited (Bellevue).

	,
A. Halworth.	A. Anderson.
H. Blake.	J. Radford.
D. McKay.	J. McGeough.
J Cooke.	J. Katka.
É. Brldge.	

#### Canadian Coal Consolidated, Limited (Frank).

J. Reid.	W. Picton.
J B. Finlayson.	J. H. Robinson.
F. Raynor,	L. Crockett.
J. Nicol.	J. Patterson

## Hillcrest Collieries, Limited (Hillcrest).

H. Hunter. D. Briscoe.

#### Davenport Coal Company, Limited (Burmis).

T. J. Garrett.
J. D. Thomas.
H. Gates.
A. W. Barnes.

#### Miscellaneous.

Francis Aspinall, Lethbridge. Andrew A. Millar, Blairmore. Dr. A. H. Baker, Blairmore.

It will be noted from the above table that no men have been trained from the mine operated by the Maple Leaf Coal Company.

During the time this station has been in operation, two calls have been made for the use of the apparatus, in each case for the Pulmotor. One call was made by the management of the Blairmore mine of the West Canadian Collieries, Limited, and one by the management of the Hillcrest Collieries, Limited, Hillcrest.

Unfortunately in both cases efforts to restore consciousness were unsuccessful through no fault of the apparatus, as in each case there was too long a delay in sending in a call to the station, particularly in that of the Hillcrest case. To substantiate this remark it is only necessary to quote the doctor's evidence given at the inquest held on the victim of the Hillcrest accident: "Had the Pulmotor been in use sooner, the man's life would without doubt have been saved."

It is necessary to point out that in order to obtain success with the Pulmotor, it is imperative to send for it with the least possible delay, and that it is entirely erroneous to suppose that it is the last resource and only to be applied when all other methods have failed.

On different occasions the Proto apparatus has been subjected to severe tests. In one case the wearer stood over strong sulphur fumes with a blanket inverted over him in the form of an umbrella, the blanket being so placed as to effectually concentrate the fumes, and although the wearer remained over half an hour under these trying conditions, he experienced no bad effects.

Some of the special features of the apparatus installed are:

1st-No important parts liable to be damaged are carried on the back.

2nd—All the valves are under the control and observation of the wearer, who requires no assistance from the other members of the team.

3rd—A bye-pass or emergency valve is provided.

4th—The pressure gauge is fixed in such a position that it can easily be seen by the wearer of the apparatus.

5th—The safety tubes are fitted so that they are not liable to be damaged or detached by contact with projections in the passages of the mine.

6th—The weight is evenly distributed.

7th—Caustic soda, the absorbent used, can be readily obtained in different forms suitable for the apparatus from various places independent of the manufacturers of the apparatus.

8th—No injector is used, thereby obviating the danger of the existence of gas in the surrounding atmosphere.

A record of the training work is being kept at the Blairmore station, in which is recorded any points considered of importance. The oxygen used by the different men who have been trained shows an average of about 70 atmospheres for two hours, therefore, on this basis the oxygen supply, when at 120 atmospheres, the capacity of the cylinders is capable of lasting three and one-half hours. In many instances various persons have used as low as 40 atmospheres in two hours.

At times considerable difficulty has been experienced by the super-intendent in charge in getting together a team to undergo training. The Maple Leaf Coal Company and the Hillcrest Collieries, Limited, have been special offenders in this connection.

The former company have had no men trained yet and the latter company have only had two men trained so far. It is gratifying to note, however, that with these two exceptions the operators in this district have given mine rescue training every possible assistance in their power.

A station known as the Lethbridge Mine Rescue Station No. 1 has been built and equipped at No. 6 mine, near Lethbridge, and is being conducted along the same lines as the Crow's Nest Pass Mine Rescue Station. Mr. Wm. B. Powell was appointed superintendent of this station at its commencement in November.

Negotiations have now been completed with the Canadian Pacific Railway Company for obtaining a railway car which will be moved from mine to mine for training purposes and will be readily available in case of emergency. This car will be fitted up with the most modern apparatus and accessories and will be provided with living quarters for the superintendent in charge. I expect it will be ready for use about February of this year.

A case occurred at Lethbridge in December, 1912, where two men were overcome by gas escaping. The Pulmotor was immediately sent for, and the doctor reports that although one man would have probably recovered without it, it was undoubtedly the means of saving the other man's life.

Before any person is allowed to be trained he must produce the following medical certificate properly filled in to show that he is physically fit to undergo training. It is also necessary for a person being

trained to produce a certificate showing that he has taken a course in First Aid Work, fitting him to give assistance to any person injured in or about a mine.

Three months after a man has completed his first course of training he must present himself for another day's training, after which if he is found to be satisfactory he will be granted a certificate.

#### QUALIFICATIONS OF RESCUE MEN.

Mining men 22 to 45 years old, in good physical condition, who are temperate in their habits and naturally calm and deliberate, are best suited for mine rescue work.

Before a man undergoes training in the use of breathing apparatus, he must be examined by a physician to ascertain his physical condition, especially the action of his heart and lungs and any defects of the nose or throat. Unless a man has a physician's certificate stating that his physical condition is good, he must not be permitted to take rescue training nor to attempt rescue work in a mine.

#### PHYSICIAN'S EXAMINATION.

Date
Name Age Residence:
Occupation How long so employed
Time of last mealPrevious illness of recent date,
having regard to rheumatism, fits, spitting of blood, asthma, bronchitis,
giddiness, vertigo, or any unsteadiness of gait
Habits as regards smoking and drinking
General appearance, paying special attention to the breathing passages,
tonsils and nostrils, also ocular conjunctiva, and any infectious condition
UrineGeneral shape and expansion of the chest
/C 1 /1 /1 / 1 /
(See that clothing is loose)
Frequency of breathing
Pulse: frequency and character
Condition of lungs
Condition of arteries and veins
Heart action
······································
Nervous or composed temperament?
The candidate is in condition to undergo mine-rescue training.
(Signed)
Physician.

LIST OF PROSECUTIONS UNDER THE COAL MINES ACT.

Costs	\$5.00	\$5.00	\$3.75
Penalty	\$10.00	\$10.00	\$10.00
Result of Proceedings	Conviction	Conviction	Conviction
Offence Charged	General rule 8 (d) section 51. Using an inflammable substance for tamping.	General rule 8 (d) section 51. Using an inflammable substance for tamping.	General rule 7 (a) section 51. Having match and pipe on his person in mine.
Description of Defendant	Miner	Miner	Tipple Boss
Mine in which Prosecution Was Instituted	West Canadian Collieries, Ltd. (Bellevue) Miner	West Canadian Collieries, Ltd. (Bellevue) Miner	Davenport Coal Company. (Burmis) Tipple

(The above prosecutions were all instituted by the Mine Manager.)

#### ACCIDENTS.

There were twenty-one fatal accidents during the past year, five of which occurred above ground and sixteen below ground.

The fatal accident which occurred to John Gumbiz in the mine operated by the Diamond Coal Company, Limited, near Diamond City, was caused by the coupling breaking on the first car of a trip which was being hauled up the incline. Gumbiz and another man were riding on this trip when the coupling broke and Gumbiz, failing to get clear of the car, was instantly killed.

The fatal accident which occurred to Herbert F. Price in the mines operated by the Cardiff Collieries, Limited, near Cardiff, was caused by Price being caught between a mine car and the face of a working place. Price was taking a car down a slight inclination when he lost control of it and as he was in front of it, was crushed against the face of the working place by the car and fatally injured.

The fatal accident which occurred to Sam Olatsky in the mines operated by The Canmore Coal Company, Limited, near Canmore, was caused by the deceased apparently striking with his pick an unexploded remnant of Samsonite which had been left from a previous shot.

The fatal accident which occurred to John Vuori in the mine operated by the International Coal and Coke Company, Limited, near Coleman, was caused by a fall of coal at the working face.

The fatal accident which occurred to William T. Bauchan in the mine operated by the West Canadian Collieries, Limited, near Bellevue, was caused by a fall of top coal while repairs were being carried on at the outside switch of the main gangway. The fire boss who was in charge at this place had the contract for the work and it would appear from the evidence that a proper examination of the place after the shot had been fired had not been made.

The fatal accident which occurred to Joe Barker in the mine operated by the Department of Natural Resources of the Canadian Pacific Railway near Bankhead was entirely unforseen, and was caused by a timber rolling off the top of a railway car which was being unloaded. When this timber fell it struck Barker and fractured his skull.

The fatal accident which occurred to Dominick Degano in the mine operated by the McGillivray Creek Coal and Coke Company, Limited, near Coleman, was caused by deceased being crushed between mine cars. It appears that he had been attempting to uncouple a car at the bottom of the incline when the car was allowed to come back, with the result that he was crushed between it and another car.

The fatal accident which occurred to Mike Portskove at the mine operated by the Department of Natural Resources of the Canadian Pacific Railway near Bankhead, was caused by Portskove being buried in the small coal bin. It appears that deceased had gone into this bin for the purpose of cleaning out the remainder of the small coal which was in it when he was buried.

The fatal accident which occurred to Raymond Rockey at the mine operated by the St. Albert Collieries, Limited, near St. Albert, was caused while a cofferdam was being erected. The timbers which were

carrying this cofferdam were too light, the consequence being that they broke, allowing the cofferdam to fall, killing Rockey instantaneously.

The fatal accident which occurred to Martin Targhetta in the mines operated by The Canmore Coal Company, Limited, near Canmore, was another case of an unexploded remnant of Samsonite being struck by a pick, causing it to go off, with the result that Targhetta met his death.

The fatal accident which occurred to Steve Roveluck at the mine operated by the West Canadian Collieries, Limited, near Blairmore, was caused while Roveluck was examining a place to find out how far it had to go before it was driven through into another place. While he was doing this a large amount of coal fell and buried him. Unfortunately the Pulmotor which is kept at the Mine Rescue Station at Blairmore was not used on this man until it was too late to be of any use.

The fatal accident which occurred to Mike Kangas in the mine operated by The Canmore Coal Company, Limited, near Canmore, was caused by Kangas being knocked down a chute by a boulder which fell away from the coal face.

The fatal accident which occurred to Steve Komplin in the mine operated by the Leitch Collieries, Limited, near Passburg, was caused through lack of ventilation in a place which was being driven to connect to another place.

The fatal accident which occurred to Emile Gengembre in the mine operated by the McGillivray Creek Coal and Coke Company, Limited, near Coleman, was caused by a fall of cap rock in one of the rooms.

The fatal accident which occurred to Sam Caravelos in the mine operated by the Canadian Coal Consolidated, Limited, near Frank, was caused by Caravelos going into a place and attempting to brush out an accumulation of gas which was there, with a piece of brattice cloth.

The fatal accident which occurred to Archibald Laidlaw in the mines operated by the Pacific Pass Coal Fields, Limited, near Bickerdike, was caused by a fall of roof. It appears that Laidlaw, together with another man, had been sent to secure a piece of roof coal which showed a slip in it, and while doing so, the roof fell, killing Laidlaw.

The fatal accident which occurred to John Chezik at the mines operated by the Canadian Consolidated, Limited, was caused by Chezik taking hold of an electric wire which had been broken by a wind storm.

The fatal accident which occurred to Leon Seniuk in the No. 6 mine operated by the Department of Natural Resources of the Canadian Pacific Railway, near Lethbridge, was caused in connection with haulage. Seniuk was bringing a number of cars down an incline and failed to put sufficient sprags into the wheels, with the result that the cars ran away and caught him.

The fatal accident which occurred to Sam Wilson in the mine operated by the Hillcrest Collieries, Limited, near Hillcrest, was caused by Wilson going into a place which was fenced off owing to an accumulation of gas being present there. He apparently went into this place with the intention of having the gas removed. This is another case where it is probable that if the Pulmotor had been sent for immediately after the accident had occurred, according to the evidence given by the

doctor at the inquest, this man's life would have been saved. There appears to be no reason why the Pulmotor should not have been sent for.

The fatal accident which occurred to John Loftus in the mine operated by the Canada West Coal Company, near Taber, was caused by a fall of roof while deceased was mining the coal.

The fatal accident which occurred to Joe Bojdys in the mine operated by the Department of Natural Resources of the Canadian Pacific Railway near Bankhead, was caused by a timber being knocked out by a car which had become derailed. It appears that deceased was operating a compressed air locomotive at the time, when one of the cars became derailed, with the result that he was killed instantaneously.

There have also been thirty-three serious accidents below ground and five above ground, and fifty-two slight accidents below ground and six above ground.

The following table gives the number of tons mined per accident in the province from the years 1906 to 1912, inclusive:

Summary Table Showing Accidents Occurring in Mines During Years 1906 to 1912 Inclusive.

YEAR	OUTPUT	ACCIDENTS				F COAL	
		Fatal	Serious	Slight	Fatal	Serious	Slight
1906	1,385,000	10	11	20	138,500	125,909	69,250
1907	1,834,745	19	18	68	96,565	101,930	26,981
1908	1,845,000	11	38	13	167,727	48,552	141,923
1909	2,174,329	9	42	18	241,592	51,769	120,796
1910	3,036,757	61*	41	58	49,782*	71,067	52,357
1911	1,694,564	7	32	45	242,080	52,955	37,656
1912	3,446,349	21	38	58	164,111	90,693	59,419

<sup>\*</sup>Including thirty-one deaths caused by Bellevue explosion.

Table Showing Accidents During 1912 Classified According to Districts.

DISTRICT	OUTPUT	ACCIDENTS				OF COAL ER ACCID	
		Fatal	Seri's	Slight	Fatal	Serious	Slight
Crow's Nest Pass	1,524,816 760,687	9	17 13	24 13	169,424 253,562	89,695 58,514	63,534 58,514
Edmonton Calgary	633,883 526,963	3 6	4	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	211,294 87,827	158,470 131,740	70,431 43,91 <b>3</b>

TABULATED LIST OF ACCIDENTS OCCURRING IN THE PROVINCE ABOVE AND BELOW GROUND DURING THE YEAR 1912.

								===
GATION	FATAL		SERIOUS		SLIGHT		TOTAL	
CAUSE	Above	Below	Above	Below	Above	Below	Above	B'lo'
Falls of coal	<u>`                                    </u>	4	1	6	T	4		14
Falls of roof	•	, 3	' '	8	· · ·	6	Í I	17
Falling down chute		٠.			١	2		] 2
Haulage	1	4		14	2	16	3	34
Gas Explosions			1		1	3		3
Explosives		2		1		11	]	14
Coal-cutting machinery			'			1		1
Asphyxlatlon		3		١				3
Electrocution	1		1		1		1	
Miscellaneous	3		5	4	4	9	12	13
Total	5	16	5	33	6	52	16	101

The following tables give the classification of accidents according to the district in which they occurred:

#### CROW'S NEST PASS.

CAUSE		ral	SERI	ous	SLIGHT	
		Below	Above	Below	Above	Below
Falls of coal		3	1	5	<u>'</u>	3
Falls of roof	١	Ί 1	ነ	4	ነ	3
Falling down chute	' . <b>.</b>	í	(	<b>(</b> )	<b>(</b> )	<b>2</b>
Haulage		1	<b>!</b>	5	1	7
Explosives	• •	١	١	٠.	١	3
Asphyxlatlon	••	3		١	·	1
Explosion of gas	••			١		1
Electrocution	1	)		)		
Mlscellaneous	• •	1	1	2	1	3
Total	1	8	1	16	2	1 22

#### LETHBRIDGE.

CAUSE		FATAL		SERIOUS		SLIGHT	
	Above	Below	Above	Below	Above	Below	
Falls of roof	· ]	1	·	3	<del></del>	2	
Haulage	1	1	••	7		4	
Explosives		• • •	• •	]		2	
Explosion of gas		• •	• •		••	2	
Miscellaneous			2	1		3	
Total	1	2	2	11		13	

### EDMONTON.

CAUSE		FAL	SERI	ous	SLIGHT	
CAUSE	Above	Below	Above	Below	Above	Below
Falls of coal	,	1		1		1
Haulage		1		2		2
Explosives			٠. ا			2
Coal-cutting machinery				,		1
Miscellaneous	1		1		1	2
Total	1	2	- <sub>1</sub> -	3	1	- 8

### CALGARY.

CAUSE		TAL	SERI	ous	slic	HT
	Above	Below	Above	Below	Above	Below
Falls of roof	••	1		1	·:	1
Haulage Explosives		2	::	1	1	4
Miscellaneous	2		1	1	2	1
Total	2	4	1	3	3	9

# Accidents From Explosions of Fire-Damp or Coal-Dust Classified According to Cause.

CAUSE OF EXPLOSION	Fatal A	ccidents	Non-Fatal Reported to	Accidents Inspector
	Number of separate accidents	Number of deaths	Number of separate accidents	Number of persons injured
Naked lights	••	••	1 2	1 2

# Accidents With Explosives, Classified According to the Nature of the Explosive.

NAME OF EXPLOSIVE	Fatal A	ccidents		Accidents o Inspector
	Number of separate accidents	Number of deaths	Number of separate accidents	Number of persons injured
Black powder			5	5
Dynamite			1 1	1
Samsonite	2	2	2	3
Monobel			3	3
Total	2	2	11	12

# Accidents With Explosives Classified According to Their Character or Cause.

CHARACTER OR CAUSE	Fatal A	ecidents	Non-Fatal Accidents Reported to Inspectors		
	Number of separate accidents	Number of deaths	Number of separate accidents	Number of persons injured	
Loose powder ignited by lamp	·	1	2	2	
Struck by coal from shot		1	4 [	4	
While working near an unexploded remnant left by incomplete de-	3	}	}		
tonation of the charge	l.	2	2	3	
Premature ignition	4	<u> </u>	3	3	
Total	2	2	11	12	

### HAULAGE ACCIDENTS.

NATURE OF ACCIDENT	Fatal A	ecidents		Accidents Inspectors
MITCHE OF ACCIDENT	Number of separate accidents	Number of deaths	Number of separate accidents	Number of persons injured
While engaged on haulage opera-			]	
tions	4	4	25	25
While going to or from work	1	1	4	4
Miscellaneous		• •	4	4
Total	5	5	33	33

# Accidents Caused by Persons Being Run Over or Crushed by Cars.

NATURE OF ACCIDENT	Fatal Ac	ecidents		l Accidents Inspectors
The state of the s	Number of separate accidents	Number of deaths	Number of separate accidents	Number of persons injured
Tail rope haulage	2	2	4	4
Endless rope haulage	1	1	6	6
Compressed air locomotives		1	10	10
Horse	i !	-	9	9
Hand	1 1	1	4	4
Total	5	5	33	33

The following is the list of the accidents which have occurred in the province during the year 1912:

	MINE	NAME	AGE	OCCUPATION	REMARKS
2 International Coal &	al & Coke Co. Ltd	J. Kilgannon	34	Miner	Fall of coal and top rock. Right arm
Railway	3 Alberta Railway and Irrigation Co	James Milling	11	Driver	Fell in front of mine car. Left leg
3 Caigary Collieries, Ltd.	s, Ltd	William Jones	29	Miner	Premature explosion of dynamite. Face
3 McGillivray Creek Coal	& Coke Co	Gordon Reiley	22	Driver	Caught between empty car and chute.
4 Jasper Park Collieries,	Ltd.	John Krosney	35	Miner	Injured by coal falling down chute.
6 Royal Collieries, Ltd		L. BoleroJohn Gumbiz	888	Miner	Fall of rock, Back injured.
				helper	Riding on car up incline when swivel
tional Coa	16 International Coal & Coke Co. Ltd	Robert Morgan	34	Miner	뒹.
16 The Cardiff Collieries,	LAd	J. McGregor	21	Driver	leg fractured. Jumping off mine car, Right ankle
16 Royal Collieries, Ltd.		C. Rosa	22	Miner	bruised. Caught between mine cars and timbers.
Coal &	17 Western Coal & Coke Co	Carl Smith	28	Rope rider	Left leg bruised. Caught between mine car and timb-
18 The Cardiff Collieries,	Ltd.	Bert Reid	26	Haulage Attend't	ers. Left leg bruised. Attend't Caught between car and timber. Col-
ional Coa	oke Co, Ltd	Martin Setla	21	ಡ	7
Railway	0	Bill Ponich	86	Driver	car. Left ankle injured. Caught by mine car. Compound frac-
Hill Collie		_ ~	22	Miner	. 🖫
24 Royal Collieries, Ltd.		Thomas Longworth	29	Miner	Compound fracture of leg. Struck foot with coal pick. Foot
27 Royal Collieries, Ltd.		. A. Holoburdt	23	Miner	bruised. Injured by fall of rock. Head and

DATE	E	NAME	AGE	OCCUPATION	REMARKS
Jan.	31 Jasper Park Collieries, Ltd	. Campbell McPherson	28	Miner	Fall of coal at working face. Leg
Jan.	31 Cardiff Collieries, Ltd	Herbent Price	24	Miner	H
Feb.	6 West Canadian Collieries, Ltd. (Blairmore). William	Slack	52	Miner	against coal face. Fatal. Fall of rock at coal face. Body slightly
Feb.	7 Hillcrest Collieries, Ltd	. Dominick Marshall	24	Tracklayer	bruised.  Caught between chute and car while riding on car. Bruised about pel-
Feb.	7 Lethbridge Collieries, Ltd	Arthur Gore	21	Laborer	ii
Feb.	16 The Canadian Coal Consolidated Ltd	John Ostapozak	35	Car-pusher	tured. Caught between two cars. Leg in-
Feb.	17 Diamond Coal Co. Ltd	Victorio Bignotti	25	Loader	(E)
Feb.	19 West Canadian Collieries, Ltd., (Lille)	G. Lescuti	24	Miner	while shearing. Left eye injured. Struck by plece of rock from shot.
Feb.	24 West Canadian Collieries, Ltd. (Bellevue) Amour Mission		30	Miner	Chest injured. Falling down chute. Right ankle
Feb.	24 International Coal & Coke Co., Ltd	:	34	Miner	crushed and chest bruised. Fall of rock at face. Compound frac-
Feb.		Walter Smith	25 I	Rope rider	ture of bone of left foot.  Crushed between car and side of road-
Mar.	4 Bankhead Mines, Ltd	Pete Balla	31	Miner	way. Fingers crushed. Caught between car and door frame.
Mar.	6 International Coal & Coke Co., Ltd	M. Lajka	22	Chute loader	s squeezed and brulsed.
Mar.	11 Royal Collieries. Ltd.	Charles Smith	45	Shift boss	ing derailed car. Left wrist broken. Struck by haulage rope Leg frac-
Mar.	15 The Canmore Coal Company, Ltd.	ınsel			eft leg
Mar.	16 West Canadian Collieries, Ltd. (Bellevue) Saturnin Naroye	<del></del> -	44 	Miner	tured, right hand lacerated. Fall of coal at face. Scalp wound, arm fractured and body bruised.

DATE	DATE	NAME	AGE	OCCUPATION	REMARKS
Mar.	20 The Canmore Coal Co., Ltd	Sam Oʻakszy	19	Laborer	Premature explosion of unexploded
Mar.	20 The Canmore Coal Co., Ltd	Emmanuel Maneglia	88	Laborer	Portion of Samsonite powder. Fatar. Premature explosion of unexploded nortion of Samsonite nowder.
Mar.	20 The Canmore Coal Co., Ltd.	Tony Casali	80	Rock-miner	Several small cuts about head and
Mar. Apr. Apr.	28 International Coal & Coke Co., Ltd	John Vuori	39 26	Miner	race Fall of coal from roof. Back injured Caught between mine cars. Leg
Apr.	9 Lethbridge Collieries, Ltd	John Brauer	27	Machine runner .	bruised. Lifting derailed machine, Back
Apr. Apr.	9 12 Lethbridge Collieries, Ltd	John Soukut	28 21	Driver Driver	spranted. Caught by mine car. Thigh bruised. Fell from moving mine car. Super.
Apr.	13 West Canadian Collieries, Ltd., (Bellevue)	Wm. A. Bauchan	28	Mine laborer	
Apr.	14 Yellowhead Pass Coal & Coke Co., Ltd	A. Irstansky	25	Track layer	way. Fatal. Fell in front of mine car. Compound
Apr.	17 The Canadian Coal Consolidated, Ltd	Gideon Derume	36	Shop master	fracture of right leg. Overbalanced himself while working on
Apr.	19 West Canadian Collieries, Ltd. (Lille) M. Comparino	M. Comparino	33	Miner	tipple Leg fractured. Fall of coal while undercutting. Nose
Apr.	24 International Coal & Coke Co., Ltd	P. Clement	36	Miner	cut. Fall of coal and rock. Sprained back
Apr.	R. W. K. Cousins	Arthur Lewis Jos. Barker	26 47	MinerOutside foreman.	and ribs. Piece of flying coal. Loss of eye. Timber fell from rallway car. Fractured skull. Fatal.
Apr.	30 McGillivray Creek Coal & Coke Co., Ltd 3 Natural Renources Department	Edward Barnes	34	Miner	Fall of rock from roof. Back injured,
S .		. Mike Domolewick	20	Coupler	Caught annie spianed. Caught between bumpers of mine cars.
May	8 West Canadian Collieries, Ltd. (Bellevue) F. Bonacci	F. Bonacci	36	Miner	Fell off set of timber. Leg cut.

DATE	E	NAME	AGE	OCCUPATION	REMARKS
May May	10 Lethbridge Collieries, Ltd	Joe Popoivier 2	26 Dr	Driver	Caught by bumper of mine car. Right foot lacerated.
Mon		John Rohvei 4	44 M	Machine runner. Ignition of	figurition of gas. Slightly burned on
May.	(C.P.R. Lethbridge)	Steve Takacs	29 Cc	Coal loader	lace and names.  Premature ignition of black powder.  Rurned on face and hands.
May	17 The Cardiff Collieries, Ltd.	:	21 LC		oick. Right fool
May May	18 McGillivray Creek Coal & Coke Co., Ltd 23 Natural Resources Department.	inick Degano		Track layer	two loaded
	(C.P.R. Bankhead)	Joe Sippett 2	22 LC	Loader	Caught between mine cars. Finger crushed
June	3 West Canadian Collieries, Ltd. (Bellevue)	Amour Mission 3	30 M	Miner	ile setting
June	4 Alberta Coal Mining Co., Ltd.,	Caesar Bruno 3	35 M	Miner	or left shoulder. Wound over eye. Premature ignition of black powder.
June	8 West Canadian Collieries, Ltd. (Bellevue)	Albert Telepatti 3	30 M	Miner	Shock from explosion. Fall of coal while mining. Lacerated
					wound over right eye and apparent
June	8 West Canadian Collieries, Ltd. (Blairmore) John Gates	:	27 M	Miner	fracture of the base of skull.  Fall of roof while erecting timber. In-
aunc	In Natural Resources Department. (C.P.R. Lethbridge)	Mike Chychot	22 Se	Section man	Swinging chain of steam shovel broke,
June	West Canadian Collieries, Ltd. (Blairmore) Alfred	Sonnier	32 Ti	Timber packer	Caught by mail while packing timber.
aunc	(C.P.R. Bankhead)	Portskool		Surface laborer	Figurarm injured. Buried by slack in bin. Fatal.
July	9 Hillcrest Collieries Ltd	Elias Letherland 3	30 M	Miner	Struck by flying coal from shot. Small flesh wound.
July	11 St. Albert Collieries Ltd	Raymond Rockey 2	23 Ge	General laborer	Caught between cofferdam and plat-
July	13 Hillcrest Collieries, Ltd	Steve Belibotsky 3	32 M	Miner	Platform on which he was working
July	17 West Canadian Collieries, Ltd, (Bellevue) Barney Iorio	:	31 M	Miner	gave away. Fractured knee. Struck by lever of drilling machine. Right eye injured.

DATE	DATE	NAME	AGE	OCCUPATION	REMARKS
July	19 Royal Collieries, Ltd.	William Fiechuck	29	Miner	Struck on eye by tamping bar. Eye
Aug.	1 West Canadian Collieries, Ltd. (Bellevue) C. 6 Natural Resources Denartment	Ollst	22	Motorman	Injured by motor running into mine
A 119		:			-i'''
Aug.	1 & Coke Co.	Naukine Salvatore	20 H	Loader Pit headman	Fall of rock, Fractured leg. Stumbled against mine car. Forehead
Aug.	10 International Coal & Coke Co, Ltd	V. Stalmons	16 I	Door boy	nt of locomotive.
₹ •					tempting to jump off, left ankle dislocated.
Aug.		John Gaido	4.	Helper	Struck unexploded remnant of powder. Hands and head injured.
Aug.	12 The Canmore Coal Co. Ltd	. Martin Targhetta	39	Miner	Struck unexploded remnant of powder,
Aug	20 Noting Reconnect Denorthment	Mirio Benedetti	35 I	Loader	Fara Fall of roof. Left leg fractured.
		Goi Giola	25 1	Laborer	Fell over timber. Nose fractured.
	(C.P.R. Bankhead)	John Hurvek	23 F	Fitter	Burned by pitch, Hands and face
Aug. Aug.	21 West Canadian Collieries, Ltd. (Blairmore) Steve Roveluck 24 Mitford (Calgary) Collieries, Ltd William Pearson	: :	31 52 E	Bratticenian	burned. Fall of coal at face. Fatal. Fell while walking down slope. Frac-
Aug.	(C.P.R. No. 6 shaft, Lethbridge)	Andy Mihaluk	72 I	Driver	tured ribs. Caught by mine cars. Left leg frac-
Sept.	9 The Canmore Coal Co. Ltd	Mike Kangas	23	Miner	рņ
Sept.	9 Jasper Park Collieries, Ltd	John James	26 I	Miner	at coal race. Fatal. Fall of coal from Pillar. Head and
Sept.	10 Hillorest Collieries, Ltd.	Franke Rose	29 E	Bratticeman	ribs bruised. Fall of cap rock. Internal injuries.
					Fall of cap rock. Hlp injured.

	The state of the s				
DATE	E MINE	NAME	AGE	OCCUPATION	REMARKS
Sept.	16 The Leitch Collieries, Ltd	Steve Komplin	27	Miner	Asphyxiated, through lack of ventila.
Sept. Sept.	17 McGillivray Creek Coal & Coke Co., Ltd 19 Natural Resources Department.	· Emile Gengembre · · ·	42	Miner	tion. Fatal. Fall of cap rock. Fatal.
Sept.	23 Natural Resources Denartment	T. Stephenson	78	Loader	Ignition of gas. Arms and neck
		Joseph Starr	29	Engineer	burned. Bursting of guage glass on boiler. Eye
Sept.	23 West Canadian Collieries, Ltd. (Blairmore) John	John Robbir	34	Miner	injured.  Premature explosion of Monobel. Eves
Sept.	24 The Cardiff Collieries, Ltd	Tom Fray	20	Driver	slightly injured. Fell in front of mine cars. Right arm
•	(C.P.R. No. 6, Lethbridge)	Walter Emsley	32	Teamster	and back bruised. While driving wagon about one mile
Oct.	2 The Canadian Coal Consolidated, Ltd	Sam Caravelos		Mlner	from mine, wagon overturned, Right leg fractured. Asnhyxiated by seas Fatal While
Oct	3 Royal Collinning T.t.	i			attempting to brush out gas with brattice cloth.
;		J. Basso	<b>82</b> 70	Miner	4
Oct.	5 Canadian Coal Consolidated, Ltd	Angelo Cervo	30	Tlmberman	miss-fired. Face injured. Fell off plank laid across angle. Frac-
Oct. Oct.	8 West Canadian Collieries, Ltd. (Blairmore)Marchal Gaul 8 McGillivray Creek Coal & Coke Co., Ltd E. Curridore	Marchal Gaul E. Curridore	38 4	Miner Laborer	tured rib. Fell into chute. Ribs fractured. Accidental release of ratchet wind-
Oct.	22 West Canadian Collieries 1.14				
		E. Willan	56	Maner	Caught between mine cars. Chest and
Oct. Oct.		David Muir	30	Filre boss	back injured. Ignition of gas. Right hand injured.
Nov.		Frank Negedly	19	Drlver	Fell In front of loaded mine car. Left
		T. Strogny	33	Timber packer	arm and shoulder injured.  Timber packer Piece of timber fell down manway. Leg fractured.

td	DATE	MINE	NAME	AGE	OCCUPATION	REMARKS
18 West Canadian Collieries, Ltd. (Bellevue) 28 International Coal & Coke Co., Ltd. 9 Canadian Coal Consolidated, Ltd. 9 The Canada West Coal Co., Ltd. 9 The Cardiff Collieries, Ltd. 9 The Cardiff Collieries, Ltd. 23 The Cardiff Collieries, Ltd. 24 International Coal & Coke Co., Ltd. 26 Natural Resources Department. (Bankhead) 27 Natural Resources Department. (C.P.R. No. 6, Lethbridge) 31 Natural Resources Department.		Ltd	Archibald Laidlaw	42	Miner	Fall of coal. Fatal.
West Canadian Collieries, Ltd. (Bellevue)  28 International Coal & Coke Co., Ltd.  9 Canadian Coal Consolidated, Ltd.  30 Hillcrest Collieries, Ltd.  9 The Cardiff Collieries, Ltd.  9 The Cardiff Collieries, Ltd.  23 The Cardiff Collieries, Ltd.  24 International Coal & Coke Co., Ltd.  25 Natural Resources Department.  26 Natural Resources Department.  27 (C.P.R. No. 6, Lethbridge)  31 Natural Resources Department.  32 (C.P.R. No. 6, Lethbridge)		е)	Leon Seniuk	28	Gripper	Caught by cars runing down grade.
28 Hillcrest Collieries, Ltd		West Canadian Collieries, Ltd. (Bellevue)	S. Vandriesche	36	Timber packer Chute loader	Fall of coal. Arm fractured.  Caught between mine cars. Left thumb
Hillcrest Collieries, Ltd		Ganadian Coal Consolidated, Ltd	John Chezik	36	Lampman	×
9 The Cardiff Collieries, Ltd. 23 The Cardiff Collieries, Ltd. 23 The Cardiff Collieries, Ltd. 24 International Coal & Coke Co., Ltd. 26 Natural Resources Department. (Bankhead) 27 Natural Resources Department. (C.P.R. No. 6, Lethbridge) 31 Natural Resources Department.	63		Samuel Wilson	46	Bratticeman	Jug Storm, Fatal. Suffocated by gas. Fatal. Foll of mod Total
The Cardiff Collieries, Ltd.  The Cardiff Collieries, Ltd.  International Coal & Coke Co., Ltd.  International Resources Department.  Matural Resources Department.  Bankhead)  Matural Resources Department.  (C.P.R. No. 6, Lethbridge)  Natural Resources Department.			Henry Pomerleau	18	Laborer	Struck by broken chain on chain block.
23 The Cardiff Collieries, Ltd		Ltd	Joseph Paul	22	Laborer	Right leg fractured. Struck by broken chain on chain block.
24 International Coal & Coke Co, Ltd 26 Natural Resources Department. (Bankhead) 27 Natural Resources Department. (Bankhead)		Ltd	Mike Remmeggo	20	Miner	2
(Bankhead)  26 Natural Resources Department (Bankhead)  31 Natural Resources Department (C.P.R. No. 6, Lethbridge)  31 Natural Resources Department		International Coal & Coke Co., Ltd	M. Brennan	40	Miner	light. Face and hands injured. Piece of rock fell knocking out prop. Right shoulder dislocated
Natural Resources Department.  (Bankhead)			Joe Boldys	20	Motorman	While pushing a trip of cars, one car
31 Natural Resources Department. (C.P.R. No. 6, Lethbridge)			Toe Sikora	06	Switchmon	jumped off track and knocked out timber. Fatal.
31 Natural Resources Department.			Archie E. Tennant		Tranner	times proming true of cars, one car fimber frack and knocked out timber. Head injured.
			Andrew Evans			I. ainst side of road

#### EXAMINATIONS.

An examination for fire boss certificates was held at Frank on May 29th and 30th, at which 31 candidates presented themselves for examination, 18 of whom were successful. The regular examinations for mine managers, pit bosses and fire bosses, were held at Frank, Banff and Edmonton on September 11th, 12th, 13th and 14th. At the latter examinations, 108 candidates presented themselves for examination, 62 of whom passed, as follows: Managers, 28 sat for examination, 10 passed; pit bosses, 44 sat for examination, 28 passed; fire bosses, 36 sat for examination and 24 passed.

During the past year 121 pit boss provisional certificates and six fire boss provisional certificates were issued to different persons until they had an opportunity of obtaining certificates by examination.

The following are the questions set at the examinations held at Frank, Banff and Edmonton on September 11th, 12th, 13th and 14th, 1912:

#### MINE MANAGERS' EXAMINATION.

Paper No. 1.

Time—One and a half hours.

Candidates must obtain 70 per cent. of the allotted marks to pass.

#### COAL MINES ACT.

- 1. What are the provisions of The Coal Mines Act regarding—
  - (a) The plans of working mines?
  - (b) The plans of abandoned mines?
- 2. State the provisions of The Coal Mines Act regarding ventilation, and state what factors would influence your decision as to the adequacy of ventilation in a mine. (9)
- 3. A mine is being worked by naked lights, but it is found necessary to adopt the use of locked safety lamps. What changes will require to be made in the working of the mine? (8)
- 4. What report books, or other books of record are required by The Coal Mines Act and "Eight Hour Law" to be kept at a mine? Explain clearly the purpose for which each is used and what entries should be made in each. (12)
- 5. What briefly are the provisions of The Coal Mines Act with regard to checkweighmen? What are the duties of checkweighmen? (10)
- 6. What are the provisions of The Coal Mines Act bearing upon the following subjects:

(a) Fencing machinery?

(b) Safety valves and gauges for steam boilers?

(c) Cover overhead?

- (d) Chains? (14)
- 7. State shortly the provisions of The Coal Mines Act as to shafts or outlets. (7)
- 8. What are a mine manager's duties in the event of a serious or fatal accident occurring in or about a mine? (14)

- 9. State shortly the requirements of The Coal Mines Act as to-
  - (a) Approaching old workings;
  - (b) Examination and use of safety lamps;
  - (c) The use and handling of explosives in or about a mine. (18)

## MINE MANAGERS' EXAMINATION.

Paper No. 2.

Time—Two and a half hours.

Candidates must obtain 70 per cent. of the allotted marks to pass.

# GASES, SHOT-FIRING AND SAFETY LAMPS,

- 1. During an inspection of a longwall district, in which black powder is used as the blasting material, you find a small fire-damp cap in the return air leaving the last face. You also observe that the face is naturally wet but the haulage load is dry and dusty. What further observations would you make, and what action, if any, would you take?

  (8)
- 2. Whilst examining for gas near the roof your safety-lamp is extinguished without giving any of the characteristic indications of fire-damp, what inference would you draw, and what would be an approximate composition of the gas?

  (7)
- 3. Describe the type of safety-lamp you are familiar with and explain fully the principal features upon which the safety of the lamp depends. Describe fully the arrangements you would make on the surface and underground to safeguard the mine from any accident likely to be caused through the use of safety-lamps. (10)
- 4. What is the meaning of the expression "spontaneous combustion"? Enumerate the gases given off from an underground fire, and discuss the one you consider most dangerous. Describe the effect upon a man breathing a diluted mixture of this gas and air, and explain how you would proceed to detect small quantities of the same. (9)
- 5. A stone drift 500 yards long has to be driven rising 1 in 8. The strata are ordinary coal measures strata and rise 1 in 10 in the direction in which the drift is going. Fire-damp is given off in places, and some of the ground is rather weak. No water is given off. Describe clearly what precautions should be taken for the safety and efficiency of the work, quoting any General Rules which refer to the subject. (7)
- 6. Describe briefly the method of firing shots in mines by means of fuse, squibs and electricity respectively, and discuss their comparative merits in respect to safety. (10)
- 7. What is the formula for calculating the percentage of gas from the height of flame cap observed? What percentage of gas is indicated by a three-quarter inch cap? Describe the expansive properties of fire-damp when mixed with air and when ignition takes place. (9)
  - 8. Explain fully the real dangers connected with—
    - (a) The use of monobel in conjunction with black powder;
    - (b) Using fine and coarse powder mixed;
    - (c) Tamping shots with coal-dust. (8)

- 9. (a) What is meant by the "Relative Weight" of the different gases?
  - (b) Give the relative weights of the different gases found in coal mines. (6)
- 10. (a) What effect does coal dust have on an explosion of firedamp?
  - (b) What effect does white-damp have?
  - (c) What effect does black-damp have?
- 11. What is the composition of—
  - (a) Black powder?
  - (b) Monobel?
  - (c) What gases are generated by each when exploded?
  - (d) What is the composition of fuse, and what gases does it generate in burning? (9)
- 12. In what part of a mine is coal dust most likely to be found? What precautions should you take on an engine plane with an accumulation of coaldust where there was a fairly strong current and cars moving rapidly, and under what conditions should you allow blasting and what explosive should you use? (8)

#### MINE MANAGERS' EXAMINATION.

Paper No. 3.

Time—Three and a half hours.

Candidates must obtain 70 per cent. of the allotted marks to pass.

#### VENTILATION.

- 1. What would be the height of motive column for upcast and for down-cast air respectively, when the depth of each shaft is 300 feet and the temperature of the downcast shaft is 32 digrees F. and that of the upcast 48 degrees F.?
- 2. If 10 horsepower is producing a circulation of 60,000 cubic feet of air per minute in a mine—
  - (a) What is the water gauge?
  - (b) What quantity of air and what water gauge will be produced in this mine when the horsepower is increased to 25? (10)
- 3. What is meant by the term "coefficient of friction" as used in connection with mine ventilation? Give an example showing how such coefficient is used.
- 4. What should happen to the fan if the doors at the top of the upcast were suddenly opened? Would the fan stop, slow down or increase its speed? Give reasons. (5)
- 5. Two shafts 110 feet apart are to be sunk to a depth of 460 feet. Describe fully the plant and arrangements you would adopt for their ventilation while sinking. (9)
- 6. The return air of a mine shows by analysis 1¾ per cent. of fire-damp. The volume of air passing is 100,000 cubic feet per minute and the water gauge in the fan drift is 2½ inches. Find—
  - (a) The volume of air required to reduce the quantity of fire-damp to 1 per cent.;
  - (b) The additional horsepower required from the fan to circulate the increased volume. (8)

- 7. If one ventilating fan is producing a current of 25,000 cubic feet of air per minute in a mine, what total quantity of air can be produced by the addition of another fan of the same dimensions and operated with equal power?

  (9)
- 8. Show how you would ventilate the workings on the accompanying plan having due regard to haulage, coal being wound at the downcast shaft only. Show by arrows the direction of the air currents, putting in the necessary stoppings, doors, brattices and lamp stations.
- 9. Describe generally what you would consider a model ventilating plant for a mine employing 500 men underground on one shift, and sketch and describe the construction and action of the fan you would adopt. (10)
- 10. Describe fully the Fleuss Rescue Apparatus and illustrate your description with sketches. Discuss its value with reference to—
  - (a) Saving life after an explosion in a mine; and
  - (b) Fighting a mine fire on the main haulage road of a flat seam. (12)
  - 1. (a) Describe the difference between the exhaust and forcing fan system of ventilation.
    - (b) Which is to be preferred under certain conditions for the ventilation of coal mines?
    - (c) Is the resistence any greater to be overcome in the use of the exhausting or forcing fan?
    - (d) In increasing the velocity of the air current, or lengthening the distance the air has to travel through a mine, is the resistance increased; if so, why? (10)

## MINE MANAGERS' EXAMINATION.

Paper No. 4.

Time—Three and a half hours.

Candidates must obtain 60 per cent. of the allotted marks to pass.

## PRACTICAL WORK.

- 1. In a seam 9 feet thick having an inclination of 35 degrees, a section of pillars 1,500 feet on the level and 800 feet to the rise, has been left, the pillars being 40 feet on the level by 70 feet to the rise. The room consists of soft shale 9 feet thick, fiery, and gas lodges freely in the rooms. Sketch and describe how you would take out the pillars.

  (10)
- 2. Describe the general structures of a coal field in Alberta with which you are familiar and state the possibilities of future extensions, if any, with the difficulties likely to be encountered in the future working of such extensions. (10)
- 3. What is meant by the terms "Igneous" and "Aqueous" rocks and "Intrusive dyke"? (9)
- 4. Give a description of the machinery and all appliances necessary in sinking two shafts to a depth of 550 feet in moderately hard strata. When would you stop sinking to put in walling? What would guide you on this point? One of the shafts is to be used as an upcast and

the other as a downcast. The downcast shaft only to be used as a hoisting shaft and is to be large enough to allow an output of 1,200 tons per day to be hoisted. Give dimensions of each shaft. (12)

- 5. In timbering rooms in a pitching seam with a fair roof, how far apart would you place the timbers; if the roof was broken, describe and explain how they should be placed and how you would place a prop to carry the greatest load?
  - 6. (a) What dangers may be encountered in drawing pillars in a pitching seam?
    - (b) What dangers would arise from drawing pillars in a flat seam generating CH4, which is being worked immediately under another seam separated by 65 feet of strata?

      (8)
- 7. Assume you had a property of 1,500 acres containing two seams of coal each 5 feet thick with 30 feet of strata intervening between them lying perfectly level, the depth to the top seam being 500 feet; describe—
  - (a) By what system would you work each seam?
  - (b) Say whether you would work one of these seams before the other and if so, which? Give reasons. (10)
- 8. What observations have you made concerning the dangers to be apprehended as far as safety to workmen is concerned—
  - (a) In working a pitching seam with a very strong roof?(b) In working a flat seam with a tender roof? (10)
- 9. Do you consider a coal-cutting machine could be advantageously used for working a flat seam 4 feet 9 inches thick and having a tender roof; the pavement consisting of 18 inches of clay above a moderately hard rock? Give reasons for or against.
- 10. Describe the best method for signalling which you are acquainted with—
  - (a) In sinking shafts;
  - (b) In working shafts. (7)
- 11. What are the chief factors leading to spontaneous combustion in coal mines? Name the principal gases given off from such fires and state fully how you would deal with an underground fire which had broken out in a section of pillars in a pitching seam. (7)

#### MINE MANAGERS' EXAMINATION.

Paper No. 5.

Time-Four hours.

Candidates must obtain 60 per cent. of the allotted marks to pass.

## MACHINERY.

- 1. Describe the winding machinery, guides and safety appliances usually installed in an up-to-date coal mine, where the shaft is 650 feet deep and intended to raise an output of 1,200 tons in an eighthour shift.
- 2. Sketch and describe a suitable stop-block for use on a self-acting incline. For what purpose is such an appliance used? State

in your own words what rules you would make regarding the use of stop-block. (8)

- 3. What classes of ropes are most frequently used for winding purposes? Describe two methods which may be adopted to provide against excessive strains and shock. How long do you consider it safe to work winding ropes? (9)
- 4. A sump in a mine is 62 feet long, 8 feet wide and 9 feet deep, and full of water. How long will it take a 5-inch pump to empty this at a velocity of 100 feet per minute, if the leakage of the valves and resistance of the pump cause a loss of 20 per cent.? There are five 2-inch pipes running full and discharging water into the sump at a common velocity of 100 feet per minute.
- 5. Give the breaking strain of a 11-16 cast steel wire rope of seven strands and nineteen wires to the strand. What load will break a white-oak timber 10 inches wide by 12 inches thick and 12 feet long, if the load be equally distributed along the length of the timber? (6)
- 6. How would you determine the proportionate areas of the cylinders and the proper point of cut-off in each, in a compound engine of two cylinders, the initial pressure being 65 pounds above the atmosphere and the final (terminal) pressure 10 pounds below the atmosphere?
- 7. What power will be required to hoist an output of 800 tons of coal (per day) on an incline five-eighths of a mile long and rising 2 inches to the yard, extending from the inside parting to the shaft bottom, and return the empty cars, which weigh one-half as much as the load they carry; assuming the resistance of the cars to be 1-60 and the power required to move the rope equal to that required to move the cars. The speed of the rope is 3 miles per hour, and a working day 8 hours; the cars are moving 4-5 of the time. (12)
  - 8. Describe—
    - (a) A feedwater heater;
    - (b) A steam trap;
    - (c) A superheater;
    - (d) An arrangement to reduce the quantity of black smoke.
- 9. How would you support electric cables (a) in shafts, (b) in underground roadways? A dynamo is 100 yards from a house, the conductor has a resistance of .002 ohm per yard, and there will be one hundred and fifty 30-watt 100-volt lamps to be fed. What E.M.F. must the dynamo give?
- 10. What are the special difficulties that are met with in sinking to the coal in the Edmonton coalfield? Describe and compare the different methods that have been used for overcoming these difficulties.

  (10)
- 11. What are the advantages and disadvantages of a belt driven fan? (6)
- 12. It is proposed to wind 1,000 tons per day of eight hours from a shaft 400 yards deep, the ropes being balanced. The ventilation required is 150,000 cubic feet per minute, at an estimated water-guage of 3 inches. The power plant during the winding hours generates an average of 600 k.w. and supplies power for all purposes, other than

for winding and ventilating. Give the approximate brake horse-power

(a) The winding engine;(b) The fan engine;

(c) The generating engine;

and state what steam pressure, and what size, type and number of boilers you would adopt. (12)

## MINE MANAGERS' EXAMINATION.

Paper No. 6.

Time—Three and a half hours.

Candidates must obtain 60 per cent. of the allotted marks to pass.

### LEVELLING.

- 1. Draw a neat sketch with letters of reference, of the Dumpy level.
- · 2. State the causes which have operated to cause the displacement of the Y level by the Dumpy; in other words compare the Y and Dumpy levels. (9)
- 3. If the line of collimation in a Dumpy level was out of adjustment, how could you find two level points? (10)
  - 4. Describe a levelling staff and explain its use. (10)
- 5. Fill in the following level notes, showing height of the instrument, elevation and grade, and state what is the average grade from Station 0 to Station 16. Stations are 100 feet apart.

Station	B.S.	I.S.	F.S.	H.I.	Elevation	Grade	Remarks
O.B.M.	6.45						
1		3.85					
2		2.93					
3		1.84					
4		5.80					
5			3.15				
	7.20						
6		6.85		1		-	
7		4.35		1			
8		5.64					·
9		2.10					
10			.80		Í	-	
	4.86		ļ				
11		1.95					
12		5.65					
13		3.80					
14		1.60					
15		3.40					
16			2.90				

<sup>6.</sup> Plot the notes given in Question No. 5, on a vertical scale of 10 feet to the inch, marking on the number and elevation of each station.

(8)

Give the average grade from Station 0 to Station 16. Show grade by line drawn on profile. (25)

7. Describe different methods of levelling underground roadways, and say under what conditions you would use each. (12)

## MINE MANAGERS' EXAMINATION.

Paper No. 7.

Time-Four hours.

Candidates must obtain 60 per cent. of the allotted marks to pass.

## SURVEYING AND MAPPING.

- 1. Describe→
  - (a) A method of surveying with the loose needle;
  - (b) Plotting underground workings.
- 2. What is meant by the term "Azimuth"?
- 3. State the method you would employ to accurately determine the vertical depth and also to plot the traverse section of an inclined shaft.

  (7)
- 4. Explain fully how you would make a fast needle survey underground. Illustrate your answer with a sketch plan of an underground traverse. (10)
- 5. Describe the operation of connecting the surface and underground surveys of a mine in a case where one shaft only is available. What method would you adopt and why? (8)
- 6. How would you lay down a short underground survey on the surface starting from the shaft? If the ground was steep, how would you lay off the lengths of the bearings? (10)
- 7. How should you proceed in plotting additional underground workings on an old plan? (7)
- 8. What is the magnetic meridian? How is it found and what means should you adopt to test the accuracy of the meridian line on a colliery plan? (9)
- 9. Calculate by sines and cosines the bearing and length of the closing line of the following traverse:

Station.	Bea	ring	ŗ.	Disto	ince.	
0 to 1	degs.	18	mins. E	145	feet	
1 to 2 S 62	"	25	" E.		"	
2 to 3	"	<b>4</b> 3	" W.	93	"	
3 to 4	"	55	" E.	232	"	
4 to 5	"	15	" W.		"	
5 to 6	"	10	" W.	141	"	
6 to 7	"	05	" W.	128	"	
7 to 8 \$ 43	"	18	" W.		"	
8 to 9	"	08	" E.	285	"	(15)

10. Plot the traverse given in Question 9, on a scale of 100 feet to one inch, and draw the closing line from Station 0 to Station 9. (20)

#### PIT BOSS EXAMINATION.

## Paper No. 1.

Time—One and a half hours.

Candidates must obtain 60 per cent. of the allotted marks to pass.

## COAL MINES ACT.

- 1. State in your own words what are the requirements of The Coal Mines Act, relating to the inspection of machinery (9)
- 2. State fully the provisions of The Coal Mines Act regarding manholes on underground roads. (12)
- 3. State fully the requirements of The Coal Mines Act with reference to ventilation of mines. (10)
- 4. State fully the provisions of The Coal Mines Act relating to the employment of persons in or about mines. (10)
- 5. What are the provisions of The Coal Mines Act relative to the use and care of explosives in mines. What steps would you take to enforce these provisions, or to detect persons who are violating them?
- 6. When would you consider safety lamps necessary in order to comply with the provisions of The Coal Mines Act? (11)
- 7. State fully the provisions of The Coal Mines Act as to the inspection of mines—
  - (a) Before work is commenced;
  - (b) During working hours;
  - (c) By employees of the mine. (12)
- 8. Under what conditions does The Coal Mines Act allow a mine to be operated by a single shaft? (14)
- 9. What are the provisions of The Coal Mines Act regarding the appointment of stations. (8)

#### PIT BOSS EXAMINATION.

Paper No. 2.

Time—Two and a half hours.

Candidates must obtain 60 per cent. of the allotted marks to pass.

# VENTILATION, SHOT-FIRING AND SAFETY LAMPS.

- 1. Describe with sketches the best type of safety lamp you know for ordinary miners' use. To what points would you devote special attention in the selection of a safety lamp. (11)
- 2. Explain how coal-dust explosions may be brought about, and state what steps you would take to prevent them.
  - 3. Explain what conditions may cause a shot to hang fire—
    - (a) Where fuse is used for blasting;(b) Where an electric battery is used.
    - Describe two methods of firing shots. Which do you prefer and why?

      (9)

- 4. Show how you would ventilate the workings on the accompanying plan, having due regard to haulage. The coal is wound at the downcast shaft only. Show by arrows the direction of the air current, putting in the necessary doors, brattices, etc. (10)
  - 5. (a) Name and describe the explosive gases usually found in coal mines.
    - (b) Under what conditions may they become explosive and non-explosive?

(c) How are they generated in mines?

- (d) Where are they usually found, and how can they be expelled from the workings?
- (e) What effect have these gases on the health and safety of the workmen? (12)
- 6. What are the causes of blown-out shots, and what are the dangers arising therefrom? (5)
- 7. Describe how you would measure the quantity of air passing along an airway. Of two airways, one 7 feet wide and 6 feet high, the other 14 feet wide and 3 feet high, which will pass the greater quantity of air, other conditions being equal? Give reasons. (6)
- 8. What instruments would you use to properly determine the condition, volume and temperature of an air current in a mine? State fully the principle and action of each. (7)
- 9. What are the chief points which require immediate attention when the ventilation of a mine is reversed? (8)
- 10. 80,000 cubic feet of air per minute are circulating through a mine with a water gauge of 2 inches. What quantity will be circulated with a water gauge of 3 inches. (10)
- 11. What dangers have to be guarded against in a mine where the ventilating current is produced by means of a furnace? (7)
- 12. Discuss the advtanages and disadvantages of using black powder and monobel respectively for blasting in coal. (8)

#### PIT BOSS EXAMINATION.

Paper No. 3.

Time-Three and a half hours.

Candidates must obtain 50 per cent. of the allotted marks to pass.

### PRACTICAL WORK.

- 1. To what causes are accidents through falls of roof and sides attributed, and what precautions would you adopt to guard against them?
- 2. Describe very fully the principle and action of the Fleuss Rescue Apparatus. (11)
- 3. Describe briefly several of the irregularities which are encountered in coal seams in the Crow's Nest Pass district. (6)
- 4. Describe with sketches the different methods of securing a main haulage road and pit bottom respectively. (10)
- 5. Describe briefly the two principle methods of working pitching seams and give the conditions suitable to each. (12)

- 6. Describe fully how you would proceed to fix a walling crib or curb in bad ground, and state what precautions you would take.
- 7. Do you consider coal-cutting machines of the rotary type could be advantageously used for working a flat seam 4 feet 3 inches thick, with a moderately good roof, the floor consisting of 18 inches of fireclay above a moderately hard parting? Give briefly your reasons for or against.
- 8. Describe and illustrate some of the causes and effects of creep on (10)the main roadway of a mine.
  - 9. (a) What is meant by initial explosion?
    - (b) If you were in charge of a mine where the old workings had caved in and filled up with gas, what precautions would you take to prevent an explosion?
    - (c) What causes might lead to an explosion in this case?

(10)

- 10. Describe fully how you would operate a flat seam of coal 5 feet 9 inches thick, with a soft fire-clay pavement, and a moderately hard roof. (9)
- 11. Show by sketches, arrangements for air crossings, either over or under and give your views generally with reference to them. (7)

#### PIT BOSS EXAMINATION.

## Paper No. 4.

Time—Three and a half hours.

Candidates must obtain 50 per cent. of the allotted marks to pass.

## MACHINERY.

- 1. Why is it necessary in deep shafts to counterbalance a hoisting rope? Describe briefly one method of doing this.
- 2. Give a short description with sketches showing how you would conduct an endless haulage rope around quick curves. (7)
  - 3. How would you ascertain the horsepower of a dynamo? (6)
- 4. Describe with a sketch the principle of the force pump, stating the limits under which it will work most satisfactorily.
- 5. In a single acting force pump, the diameter of the plunger is 3 inches and the stroke is 12 inches. If the plunger makes 100 strokes per minute, calculate how many gallons of water will be delivered per hour.
- 6. Describe the principle and action of the syphon, and state under what circumstances it may be beneficially applied for conveying water in mines. Give a sketch showing its application. (10)
  - 7. Explain the principle and action of—
    - (a) The thermometer;(b) The barometer;

    - (c) The hygrometer.

Say for what purpose each is used in connection with mining.

8. If a cross-bar 12 inches in diameter and 8 feet between notches carries a certain load, what should be the diameter of a cross-bar 14 feet between notches to bear the same load? (with the same degree of safety.) (7)

9. Give specifically your reasons for preferring a main haulage engine being placed at the surface or underground—

(a) Where steam power is used;

(b) Where electric power is used. (8)

10. Describe the best driving pulley for endless rope haulage which you are acquainted with. (9)

11. What is the horsepower of an engine having a 28 inch stroke? The diameter of cylinder is 12 inches and effective steam pressure 80 pounds per square inch. (8)

12. A quantity of water which necessitates an 8-inch rising main has to be pumped up a shaft 200 yards deep. State the respective conditions under which you would use cast iron and steel pipes. How would you support the pipes in a shaft having wire conductors and what precautions would you take in replacing a broken pipe near the bottom of the shaft? (10)

#### PIT BOSS EXAMINATION.

Paper No. 5.

Time—Four hours.

Candidates must obtain 50 per cent. of the allotted marks to pass.

#### SURVEYING.

- 1. Describe fully with dimensioned sketch, the kind of mine car you consider to be best adapted for use in mines in the Crow's Nest Pass district. (12)
- 2. What steps would you take in order to comply with the provisions of The Coal Mines Act with regard to the plans of an abandoned mine? (9)
  - 3. Plot the following survey to a scale of 100 feet to the inch:

						_	-
Station.	Bea	ring	ζ.		Disto	ınce.	
1 to 2	degs.	40	mins.	E	143	feet	
2 to 3 S 78	"	15	"	E	114	"	
3 to 4	"	40	"	E	222	"	
4 to 5	"	20	"	W	192	"	
5 to 6 S 40							
6 to 7 N 38							(20)

- 4. Give the bearing and length of the closing line from station 7 to station 1, of the survey given in Question No. 3. (12)
- 5. Mention briefly the method you would adopt to secure accuracy when plotting workings on the plan of a mine on which are shown workings closed twenty years previously. (10)
- 6. Name and describe the instruments used in connection with levelling roadways underground. State the different methods employed in such levelling and say under what conditions you would use each. (11)
- 7. Describe a method of surveying and plotting underground workings. (10)
- 8. What are the advantages of keeping plans of mines? How often ought a mine to be surveyed and the mine plans brought up to date. (8)

9. The dimensions of an airway are 6 feet high by 8 feet wide, by 894 feet long and the velocity of the air is 225 feet per minute; what quantity of air is passing per minute and what is the rubbing surface of the airway?

## FIRE BOSS EXAMINATION.

## Paper No. 1.

Time—One and a half hours.

Candidates must obtain 60 per cent. of the allotted marks to pass.

## COAL MINES ACT.

- 1. What are the qualifications required by The Coal Mines Act before a person can be allowed to act as fire boss? (9)
- 2. State fully the provisions of The Coal Mines Act governing safety lamps. (12)
- 3. State the conditions under which it would be necessary to withdraw workmen from a mine in order to comply with The Coal Mines Act. (10)
- 4. State fully what action you would take before firing shots in a mine generating fire-damp. (12)
- 5. What are the provisions of The Coal Mines Act relating to the care and handling of explosives? (14)
- 6. State briefly how you would proceed to make a thorough examination of a mine as fire boss; stating what you consider the most essential features to be noted so far as the safe working of the mine is concerned. (12)
- 7. What are the requirements of The Coal Mines Act relating to manholes on underground roadways? (11)
  - 8. What are the requirements of The Coal Mines Act regarding—

(a) A supply of timber?

(b) Appointment of stations? (10)

9. What are the provisions of The Coal Mines Act relating to the inspection of mines, both before and during work? (10)

## FIRE BOSS EXAMINATION.

Paper No. 2.

Time-Two hours.

Candidates must obtain 60 per cent. of the allotted marks to pass.

# VENTILATION AND SAFETY LAMPS.

- 1. What is meant by splitting the air current in a mine, and what effect has it upon the total volume of air in circulation? (8)
- 2. A volume of 22,000 cubic feet of air per minute is passing along an airway 6 feet high by 8 feet wide; what is the velocity of the air in feet per minute?

(9)

- 3. Describe fully the anemometer and thermometer, and say for what purpose each is used in connection with mine ventilation. (10)
- 4. Describe with sketch, some form of safety lamp which you consider most suitable for the use of miners. Discuss the advantages and disadvantages of having safety lamps fitted with internal ignitors.

  (12)
- 5. What causes are likely to lead to explosions in mines, and state fully what precautions you would take to prevent them? (8)
- 6. Discuss the advantages and disadvantages of having open lights in mines, and say what dangers are likely to arise from their use. (9)
- 7. In a mine with an output of 1,200 tons per day, the average daily output per man is  $3\frac{1}{2}$  tons; what is the minimum quantity of air per minute you would have circulating around the mine? (8)
- 8. What is meant by "Natural Ventilation"? Explain fully the principle of natural ventilation and state its advantages and disadvantages as compared with artificial ventilation. (10)
- 9. Explain the difference between the forcing fan and exhausting fan system of ventilation, and state under what circumstances you would adopt one in preference to the other. (9)
- 10. Describe fully the construction of a regulator, and say for what purpose it is used. (10)
- 11. Explain fully how you would clear out an accumulation in a narrow heading of—

(a) Fire-damp;

(b) Black-damp.

#### FIRE BOSS EXAMINATION.

Paper No. 3.

Time—One and a half hours.

Candidates must obtain 50 per cent. of the allotted marks to pass.

## GASES AND SHOT-FIRING.

- 1. What are the chief noxious gases met with in coal mines? In what percentage is each dangerous to human life, and how would you test for the presence of each in a mine? (11)
- 2. Describe briefly two methods of firing shots. Give the advantages and disadvantages of each. (8)
- 3. What are the circumstances that may cause a blown-out shot? State the dangers that may occur from blown-out shots and what precautions you would take to prevent this. (10)
- 4. Under what circumstances do you consider a high explosive to be preferable to ordinary black powder for blasting? (8)
- 5. Under what conditions may coal-dust become a dangerous agent in coal mines? (10)
- 6. Discuss fully the effect of various percentages of gas on the flame of an ordinary safety lamp, stating the best methods you know of testing for gas. (9)

- 7. Explain under what circumstances may you have an explosion in a mine where the flame of the safety lamp does not show any indications of the presence of fire-damp. (9)
- 8. What is meant by "Diffusion of Gases" and what effect does this have on the ventilation of a mine? (9)
- 9. Explain fully from what sources CH4 is generated in mines in the lignite field, and what steps you would take to prevent an accumulation of this gas. (7)
- 10. Describe some form of electric battery for shot-firing, and discuss its advantages and disadvantages. (8)
- 11. Following a low barometer at a mine in course of development, gas exuded to such an extent as to fill the working places out to the main intake. To what causes would you attribute such an occurrence, and what steps would you take to restore adequate ventilation in the mine? (11)

#### FIRE BOSS EXAMINATION.

Paper No. 4.

Time—Two and a half hours.

Candidates must obtain 50 per cent. of the allotted marks to pass.

#### PRACTICAL WORK.

- 1. What precautions would you take to overcome the dangers to be apprehended as far as safety to workmen is concerned, in working a coal seam with a very strong roof in longwall, and stoop and room workings, respectively? (9)
- 2. What arrangements would you make on underground roads where the haulage is done by means of horses, to insure the safety of drivers and all persons employed in the mine? (7)
- 3. Describe the principle and action of the Fleuss Mine Rescue Apparatus, and state what experience you have had with it. (12)
- 4. Describe with sketches two methods of extracting pillars on a seam 12 feet thick and pitching at an angle of 38 degrees, with a fairly good roof. Say which method you prefer and give reasons for your preference. (10)
- 5. Describe fully the method of boring and the tools required, when approaching old workings likely to contain large accumulations of water and gas.

  (8)
- 6. Describe with sketches how you would work a flat seam of coal 4 feet 3 inches thick with soft roof and pavement. (11)
- 7. Sketch and describe the various systems of timbering a main road with which you are acquainted, and briefly explain the circumstances suitable to each.
- 8. A number of underground fires have occurred within recent years in mines in the Lethbridge district. Describe fully how in your opinion these fires may be caused and what precautions you would take to prevent them.
- 9. Discuss the advantages and disadvantages of firing shots in the lignite field by means of squibs and fuse respectively. (7)

- 10. If a seam of coal dips to the south and a down-throw fault is met in driving an east level, in which direction should the road be turned to again reach the coal?

  (6)
- 11. Describe with sketches some method of timbering a working place on a 14-feet seam which is pitching at an inclination of 40 degrees.

  (6)
- 12. Sketch and describe with dimensions a ventilation door which you would erect on the main haulage road of a flat seam. (9)

#### WAGES.

The scale of wages paid in the province during the year 1912 remains the same as it was at the end of the year 1911, and is as follows:

## Outside Wages.

Fire bosses	\$110.0	0 to	\$1	15.00	per	mo	nth.
Bottom man		. \$2.					hrs.
Slate pickers (boys)		1	.37	"	**	10	**
Slate pickers (men)		2	.47	"	"	10	"
Car oilers (men)		2	.47	44	**	10	**
Car oilers (boys)		1	.65	"	44	10	"
Tally boys		:	1.37	"	**	10	64
Teamsters		2	.89	"	"	10	**
Blacksmlth		8	.85	"	"	10	**
Blacksmith's helpers		2	.90	"	**	10	"
Power-house engineers		8	.85	"	**	12	**
Power-house engineers		8	3.40	"	"	8	66
Fan-men			.90	44	**	12	44
Hoisting engineers			.20	"	**	8	**
Hoisting engineers		8	.78	"	**	10	**
Hoisting engineers		. 4	.40	"	**	12	"
Tail rope englneers			.63	**	**	8	46
Tail rope engineers			.85		**	10	**
Endless rope engineers		_	.30		"	10	**
Box-car loader engineer			.40		**	10	**
Tipple engineer			.40		"	10	**
Screen engine tender			.65		**	10	**
Locomotive engineer			.40		"	10	"
Locomotive switchman			.00		"	10	"
Fireman			.89		"	8	"
Fireman			.85		**	12	"
Fireman's helper			.65		**	10	"
Railway-car helper		-	.60		"	10	"
Tipple dumper (man)			.89		**	10	"
Tipple dumper's helpers			.64		**	10	**
Tipple dumper (boy)			.65		"	10	"
Top cages			.64		**	10	**
Car repairer			.40		**	10	**
Car repairer's helper		_	.90		"	10	"
Breaker engineer		-	3.40		"	10	"
Fan fireman			.40		**	12	**
Lampman (depending upon num			. 40			12	
lamps and skill of man			.89	,,	,,	8	**
Lampman (depending upon num			.00			0	
lamps and skill of man)			.40	"	**	12	"
· ·	•		.85	**	"	10	**
Machinists				"	**	10	**
Machinist's helper			.90	**	"	10	44
Ashman			.50	"	"		"
Ashman			.89	"	"	$\frac{12}{12}$	"
Wiper (man)			.89		"		"
Coupler (man)			.47		"	1\$	"
Coupler (boy)			.65	"	"	10	"
Breaker oiler		. 2	.89	••	••	11	••

Washer or tipple oiler	\$2.89	per	day	11 ł	nrs
Breaker picker boss	2.89	"	"	10	"
Timber framer	3.40	"	"	10	٠.
Timber sawyer	2.64	"	"	10	"
Box-car shoveller	2.89	"	"	10	44
Breaker platform boss	2.89	"	"	10	"
Breaker platform men	2.60	• •	"	10	**
Breaker screen men	2.47	"	"	10	44
Rock bank men	2.47	"	"	10	"
Dirt bank men	2.47	"	"	10	"
Finisher after box-car loader	2.47	"	"	10	"
All other outdoor labour $\ldots\ldots\ldots$	2.47	**	**	10	"

# Bee Hive Coke Ovens

Levelling and drawing (6 1-2 ton charg	e) per	over	1	\$1.00
Levelling and drawing (5 ton charge), p				
Loading into box or open cars (over	er 200	ton	s per	•
month), per ton				
Loading into box or open cars (less th	nan 20	0 tor	ıs pei	•
month), per ton				.16
Seam locomotive engineer	<b>\$3.40</b> ]			
Motorman	0. ± 0		" 1	•
Larryman	2.47			
Plasterers	2.47	"	" 1	0 "
Carters and cleaners	2.47	"	" 1	0 "
All other labor	2.47	"	" 1	0 "

# Belgian Coke Ovens.

Ram engine man	<b>\$3.40</b>	per	day	10	hrs.
Chargers	2.89	"	"	10	"
Clayers	2.89	"	"	.10	"
Drawers	2.89	"	"	10	"
Loaders	2.60	**	"	10	**

# Briquette Plant

Engineer	\$3.86	per	day	12	hrs
Briquetter	3.97	44	"	12	"
Briquetter's helper	3.40	"	**	12	"
Tar melter	2.89	"	**	12	"
Labourers	2.89	**	"	12	"

# Inside Wages.

Shotlighter	\$3.30	per	day	8	hrs.
Bratticeman	3.30	"	"	8	"
Bratticeman's helper	2.75	44	"	8	"
Timberman	3.30	"	"	8	"
Timberman's helper	3.75	"	"	8	"
Tracklayers	3.30	"	"	8	44
Tracklayer's helper	2.75	"	44	8	"
Motorman	3.05	"	"	8	"
Motorman's helper	2.75	"	"	8	٤.
Locomotive engineer	3.05	"	"	8	44
Locomotive switchman	2.75	"	"	8	"
Drivers	3.03	"	"	8	44
Drivers (wet places)	3.30	**	"	8	"
Drivers (spike team)	3.50	"	66	8	"
Couplers (men)	2.75	"	4.6	8	"
Couplers (boys)	1.65	"	"	8	**
Switch boys \$1.37 to	1.65	"	44	8	"
Door boys	1.10	"	"	8	44
Rope riders	3.03	"	**	8	56

Main and tail rope riders	\$3.30	per	day	8	hrs.
Pushers	2.75	"	44	8	**
Buckers	2.75	"	**	. 8	**
Loaders	2.75	"	44	8	**
Miners	3.30	"	**	8	44
Miners (wet places)	3.75	"	44	8	"
Rock miners	3.75	44	44	8	"
Timber handlers	3.03	"	"	8	"
Laborers	2.75	"	"	8	"
Cagers, slope and incline	2.75	**	4.6	8	**
Cagers, shaft	3.30	44	"	8	"
Machine men	3.75	"	44	8	44
Machine men's helper	3.30	44	4.4	8	44
Pumpmen	2.75	"	"	8	44
Pumpmen (Dept. Nat. Res. C.P.R.)	3.20	14	"	8	"
Hoistmen \$3.03 to	3.30	"	"	8	"
Drivers (boys) \$1.65 to	2.75	"	6.6	8	"
Grippers	2.75	"	"	8	"
Grippers (boys) \$1.65 to	1.75	14	"	8	44
Pipe fitters' helpers	2.75	"	44	8	"
Pit carriers\$1.37 to	2.75	• •	"	ુ 8	"
Clutchmen	3.30	44	* *	8	"
Rollermen	2.75	"	44	8	"
Miners on contract average \$350 to	6.00	"	46	8	"

Although the output of coal during the year 1912 shows an increase of 409,592 tons over the year 1910, this increase would have been much greater if the industry had not been hampered considerably by the lack of railway cars, particularly during the early part of the year. A number of the mines in the Crow's Nest Pass and Lethbridge districts only worked an average of 8 or 9 days per month for several months. If a sufficient supply of cars is obtained during the present year, a very much increased output may be expected.

I have the honour to be, Sir

Your obedient servant,

JOHN T. STIRLING,

Provincial Inspector of Mines.

## THE STEAM BOILERS BRANCH

Inside Staff— One Clerk in charge.
One Chief Inspector.
One Stenographer.

Outside Staff— Four District Inspectors.
Three Assistant Inspectors.

The returns for the year ending December 31st, 1912, covering work in connection with the Steam Boilers Branch show a very marked increase over the corresponding period last year, and the inspectors' reports indicate that at the close of a very busy season there yet remain portions of each district not fully covered by inspection. Special efforts are made, however, to visit all stationary plants regularly once every year,

and oftener in some instances, in order to determine whether repairs ordered have been attended to and satisfactorily completed.

Every endeavour is made by the inspectors to inspect each and every boiler in their individual district at least once a year, but with the staff available at the present time, and considering the extent of territory to be covered, this is found to be practically impossible.

Although bad roads, requests for special inspections, monthly examinations of candidates for engineers' certificates, etc., have interfered somewhat with the routine of inspection, there have been 1,590 inspection certificates issued for boilers during the year, while 71 other boilers were inspected but no certificates issued therefor, pending completion of repairs. Sixteen boilers in all were condemned.

While the great majority of steam users in the province recognise the advantage of careful and efficient operation of their plants, some few owners are still met with, who, through lack of interest and want of knowledge necessary for the proper upkeep of their plants, suffer considerable loss of fuel and boiler efficiency, also output, through defective settings, scale in boilers, faulty steam pipes, etc.

During the months of March and April, regular advertised examinations for engineers were held at 62 points throughout the province, at which a total of 1,354 candidates presented themselves for examination. In addition to those advertised and held during the spring, there have been regular monthly examinations held at the respective headquarters of each district inspector, and certificates were issued to those successful in passing for the various classes as follows: First class, 13; second-class, 56; third-class, 421, traction final, 139; fireman's final, 4; provisional, 751; renewal of provisionals, 121; second provisional, 86.

Two hundred and eighty-four permits have also been granted to owners in accordance with the provisions contained in section 34 of The Boilers Act.

Seven registered engineers had their certificates suspended for neglect of duty, and two others had their certificates cancelled, they having been found under the influence of liquor while on duty.

Convictions were obtained in 19 cases of prosecution for violation of the Act.

An innovation was made during the year by the purchase of three Ford single seated "Roadster" automobiles which were assigned to districts most suitable for this mode of travel, the teams previously used being dispensed with. The superiority of these autos over the teams has been amply demonstrated during the six months in which they have been operated, a total of 11,000 miles having been covered at a cost of five and a half cents per car mile. The quicker means of travel provided in this way has resulted in a considerable saving of time when moving from point to point, and a consequent increase in the number of boilers inspected throughout the districts were operated.

Justifiable allusion may again be made here to the regulations which now have such an important bearing on all matters relating to the construction of boilers intended for operation in this province. Continued satisfaction with the results obtained from their application is

heard expressed on every hand, both from the manufacturers and the purchasers of boilers, and it is interesting to note, so widely have they become known and appreciated, that almost every mail brings requests for copies, such requests eminating from Great Britain, Panama, almost every state in the Union to the South, and even from Tokio, Japan. In some instances it has been mentioned that copies are to be used specifically as a basis on which to formulate similar data, and for like purposes as applied here.

Twenty-seven per cent. of the total number of Inspection Certificates issued during the year covered new boilers built to Alberta regulations, a similar percentage to that reported last year.

The Chief Inspector appends an interesting report, one item therein being particularly worthy of notice, as showing that at the present time there is some 150,000 boiler horsepower in the province under the jurisdiction of this branch.

The names and addresses of the Chief, District and Assistant Inspectors are given below:

F. W. Hobson Edmonton.
Jos. Buxton Calgary.
David Fraser Edmonton.
N. Marshall Lethbridge.
W. D. Watson Red Deer.
F. P. Poole Edmonton.
E. S. Hodges
W. Gray Lethbridge.

A consolidated summary, compiled from the Inspectors' reports, showing the total number of defects found in boilers examined during the year, follows:

DEFECTS IN	Hor. Tub.	Hor. Fur.	Ret. Tub.	Loco. F box	Vert. Tub.	Water Tube	Tota
Shell and drum	18	4	10	9	6	11	5
Front tube sheet	2			31			3
Back tube sheet	)	1		13		1	1
Top tube sheet	2		1	4			'
Bottom tube sheet				25	2		2
Firebox side sheet (inside)				52	2		5
Firebox side sheet (outside)				27			2
Crown sheet			7	116	2		12
Saddle sheet							
Inside W.B. sheet				16			1
	••	• •	•••	14			1
Outside W.B. sheet	• •		••	6			1
Back sheet	• •	• •	•••	10			1
Face plate	• •	• •	••		••	• •	1
Throat sheet	• • • •	• •	•••	3	• •	• •	
Foundation and door rings	• •	• •	••	9	• •	• •	1
Stay bolts	• •		3	192	• •	• •	19
Crown stays		• •	1	38	• •	• • •	3:
Longl. stays	3		1	1			
Leaking seams	11	• • •	1	4	6		2
Rivets		5			2		,
Main flues							••
Tubes	9		3	36	22	10	8
Hand holes and man holes	6	5	1	22	47		8
Studs and bracket (attach.)			2	30	2		3-
Safety valves	15	1	2	102	30	1	15
Steam gauges	19	6	4	95	9	1	13
Water gauge fittings	35	5	3	85	23	2	15
Blow down	33	3	3	98	37	7	18
Fusible plug	20	8	3	53	3	5	9
Other fittings	1			1			1
Settings		23		1	1	• • •	4
Heavy scale	21		1 1	41	1	2	7
	32	••	1	41	1 1	4	2
Feed arrangement	21	• •	• • •		• •		
Steam piping and supports	13	• •		1		2	1
Hand railing for fly wheeld	1				1		
Switchboards, etc	4	••		• • •		••	
Total	264	61	47	1134	194	41	174

A schedule of certificates issued and fees collected, inspectors' annual reports, list of manufacturers and list of final certificates issued to December 31st, are appended:

	1911	1912
Number of certificates issued for boilers inspected	1.311	1.590
Number of advertised examinations for en-	, -	.,
gineers held	58	62
Number of first class certificates issued	7 ′	13 '
Number of second class certificates issued	49	56
Number of third class certificates issued	428	421
Number of traction final certificates issued		139
Number of fireman's final certificates issued		4
Number of provisional certificates issued	698	751
Number of second provisional certificates		
issued	89	86
Number of renewals of provisional certificates	86	121
Number of permits issued	. 184	. 284

#### FEES COLLECTED.

For inspection of boilers	1911 \$ 6,426.00 36.05	1912 \$ 7,898.00 438.66
certificates  For provisional certificates  For second provisional certificates  For renewal of provisional certificates.  For permits  For surveys of drawings	2,523.00 3,517.00 455.00 215.00 920.00 1,296.00	3,308.00 3,755.00 410.00 303.00 1,420.00 1,187.04
	\$15,388.05	\$18,719.70

## EXPENDITURE

For the year ending December 31st, 1912 in connection with the administration of the Steam Boilers Act.... \$25,820.57

The tollowing is a complete list of manufacturers whose designs for boilers and boiler accessories have been submitted to and approved by the department.

#### MANUFACTURERS OF BOILERS.

#### Canada.

American-Abell Co., Toronto, Ont. Bell (Robert) Co., Seaforth, Ontario. Beatty (M.) & Sons, Welland, Ontario. Berg Manufacturing Co., Toronto, Ontario. Caledonian Ironworks, Montreal. Canada Iron Corporation, Ltd., Midland, Ontario. Doty Engine Works, Goderich, Ontario. Dominion Bridge Co., Montreal, P.Q. Fraser & Chalmers Co., Montreal, P.Q. Grand Trunk Pacific Railway Co., Winnipeg, Manitoba. Goldie & McCulloch, Ltd., Galt, Ontario. Inglis (John) Co., Ltd., Toronto, Ontario. Jenckes Machine Co., Ltd., St. Catherines, Ontario. Leonard (E.) & Sons, London, Ontario. Marsh & Henthorn, Ltd., Belleville, Ontario. Montreal Locomotive Works, Montreal. Matheson (I.) & Co., New Glasgow, N.S. Macdonald (The) Thresher Co., Stratford, Ontario.

Polson Iron Works, Toronto, Ont.
Robb Engineering Co., Amherst, N.S.
Sawyer-Massey Co., Ltd., Hamilton, Ontario.
Waterous (The) Engine Co., Ltd., Brantford, Ontarlo.
White (George) & Sons, Ltd., London, Ontario.

## England.

Babcock & Wilcox, Ltd., London (Canadlan Agency, Montreal). Fowler (John) & Co., Leeds, Yorkshire. Lubecker (The) Machine and Manufacturing Co., London, England. Robey & Co., Limited, Lincoln, Eng. Rushton Proctor Co., Lincoln, Eng.

#### United States.

American Hoist and Derrick Co., St. Paul, Minn. Aultman & Taylor Co., Mansfield, Ohio. Avery Co., Peoria, Ill. Broderick (The) Co., Muncie, Ind. Buffalo Steam Road Roller Co., Springfield, Ohio. Bucyrus Co., Ltd., Milwaukee, Wis. Bigelow Company, New Haven, Conn. Clyde Iron Works, Duluth, Minn. Case (J. I.) Threshing Co., Racine, Wis. Duluth Boiler Works, Duluth, Minn. Davenport Locomotive Works, Davenport, Iowa. Erie City Iron Works, Erie, Pa. Freeman (S.) & Sons, Racine, Wis. Farquahar (A. B.) Co., York, Pa. Frost Manufacturing Co., Galesburg, Ill. Garr, Scott Co., Richmond, Ind. International Boiler Works, East Stroudsburg, Pa. Johnson Bros., Ferrysburg, Mich. Kelly Springfield Road Roller Co., Springfield, Ohio. Leffel (J.) & Co., Springfield, Ohlo. Marion Steam Shovel Co., Marion, Ohio (Canadian Agents, F. H. Hopkins & Co., Montreal). Muskegon Boiler Works, Muskegon. Mundy (J. F.) Hoisting Engine Works, Newark, N.J. Nichols & Shepard Co., Battle Creek, Mich. Oil Well Supply Co., Pittsburg, Pa. Orr and Sembower, Reading, Pa. Porter (H. K.) Co., Pitsburg, Pa. Reeves & Company, Columbus, Ind. Rumely Co., La Porte, Ind. Schwab-Lazotte Co., Milwaukee, Wis. Springfield Boiler and Manufacturing Co., Springfield, Ill. The Browning Engineering Co., Cleveland, Ohio. Union Iron Works, Erie, Pa.

## MANUFACTURERS OF BOILER ACCESSORIES.

#### Canada.

Babcock & Wilcox, Ltd., Montreal, P.Q.
Beatty (M.) & Sons, Ltd., Welland, Ont.
Crane & Ordway Co., Ltd., Winnlpeg, Man.
Canadlan Fairbanks Co., Montreal, P.Q.
Engineering Specialties Co., Toronto, Ont.
Goldie & McCulloch Co., Ltd., Galt, Ont.
Jenkins Bros., Montreal, P.Q.
Leonard, (E.) and Sons, Ltd., London, Ont.
McAvity (T) and Sons, St. John, N.B.
Morrison (Jas.) and Sons, Brass Mfg. Co., Toronto, Ont.

Penberthy Injector Co., Windsor, Ont. Peacock Bros., Montreal, P.Q. Robb Engineering Co., Amherst, N. S.

#### United States.

American Steam Gauge & Valve Co., Boston, Mass. Ashton Valve Co., Boston, Mass. Ashcroft Manufacturing Co., Chicago, Ill. Buckeye Iron & Brass Works, Dayton, Ohlo. Bordo (L. J.) Co., Philadelphia, Pa. Crosby Steam Gauge & Valve Co., Boston, Mass. Crane Company, Chicago, Ill. Industrial Instrument Co., Foxboro, Mass. Huyette, (P.B.) Co., Philadelphia, Pa. (Submitted by H. L. Pelier & Co., Montreal, P.Q.) Kunkle (E.B.) & Co., Fort Wane, Ind. Lunkenheimer Co., Cincinnattl, Ohio. Lonergan, (J. E.) & Co., Philadelphia, Pa. Marsh, (J. P.) & Co., Chicago, Ill. Nelson Valve Co., Philadelphia, Pa. Ohio Brass Works, Mansfield, Ohio. Powell (Wm.) & Co., Cincinnati, Ohio. Pittsburg Valve Foundry & Construction Co., Pittsburg, Pa. Roe Stephens Co., Detroit, Mich. United States Gauge Co., New York, N.Y.

Edmonton, January 11th, 1913.

JOHN STOCKS, Esq.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I have the honour to submit to you my annual report for the year ending December 31st, 1912, in accordance with section 8 of The Boilers Act.

Owing to the rapid increase in the business in this branch during the year I have been obliged, with your consent, to relinquish the charge of my district lying north of the Saskatchewan River to Inspector D. Fraser, in order to devote the whole of my time to the general administration of "The Boilers Act" and the regulations governing construction and inspection of boilers throughout the province.

It is regretted that I cannot compile correct data for your information, in time for publication, covering the number and variety of designs submitted for the approval of the department, also the correspondence received and sent out in connection with this service, further than to state that the revenue derived therefrom amounts to \$1,187.04.

The work of surveying designs is seriously delayed from time to time, due to frequent interruptions consequent upon having to interview representatives of the various manufacturers and others directly interested in the work of the branch generally, and these daily interruptions make it impossible for me to devote the time necessary to a proper supervision of matters outside the office relative to the Act and regulations which, if thoroughly understood by the steam users and their employees, would result in a uniform application of same throughout

the province, and would also eliminate to a large extent the possibility of any misunderstanding regarding the requirements necessary in the installation of new plants.

We have at the present time at least 150,000 boiler horsepower under our supervision, estimated as follows:

### Southern Alberta District.

	Horsepower
Commercial	 29,200
Agricultural	 13,100
Total	 42,300

# Calgary District.

	Horsepower
Commercial	 . 26,000
Agricultural	 . 14,000
Total .	 40,000

#### Central Alberta.

		Horsepower
Commercial		. 6,500
Agricultural	•••••	. 8,800
Total		. 15,300

#### Northern Alberta.

	]	Horsepower
Commercial		19,000
Agricultural	•••••	6,000
	-	
Total .		25,000

The foregoing represents a gross total of 122,600 horsepower inspected during the year, to which must be added some 28,000 (a conservative estimate) not inspected, and comprised mostly of agricultural power, making in all a figure exceeding 150,000 horsepower operated during the past year.

Forty-four per cent. of this power is being utilized for development and industrial purposes, 38 per cent. agricultural, and 18 per cent. coal mines.

The figures quoted above do not include boilers used solely for heating purposes, or other boilers exempted from inspection under Section 3 of the Act.

Notwithstanding the increased number of boiler plants in operation during the past year, we are pleased to say that we can again report no accidents have occurred to any boiler or other machinery under the Act causing loss of life or even serious injury to any person.

The operation of "The Boilers Act" enacted February 16, 1912, has been very satisfactory generally, both to the public and the boilers

branch, and if the three items therein are corrected as recommended to you last December, it will complete an Act that can be successfully applied for years to come.

I have to report 19 convictions obtained throughout the province during the year.

I am, Sir,

Your obedient servant,

F. W. Hobson,

Chief Inspector of Boilers.

LETHBRIDGE, January 2nd, 1913.

JOHN STOCKS, Esq.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I have the honour to submit to you my annual report for the year ending December 31st, 1912, as required by section 8 of the Boilers Act.

The year's work opened in January with the usual annual conference of the district inspectors held in Edmonton for the purpose of discussing matters of importance connected with the branch generally in all parts of the province. I left Edmonton for Lethbridge on February 14th and devoted the balance of the month to inspection of boilers in the Crow's Nest Pass district, these not having been inspected during the year 1911.

In the month of March I held consecutive examinations for engineers at 14 different points in my district, ending on the 6th of April. In addition to these, there have been examinations held in the court house building at Lethbridge on the first Saturday of each month throughout the year, which have proved to be a great convenience to candidates, although the work takes up considerable time afterwards checking over and marking papers written at the examinations, applications for certificates during the year being very numerous.

Office work in general is still heavy and occupies much time, letters and personal enquiries are on the increase, while special inspection work performed at the request of various owners, has broken in on the daily routine of district work, firms being most anxious that everything in their plans should be first class and conform to the regulations.

The results of engineers' examinations are hereafter given in detail:

A total number of 366 candidates were examined, 38 of these failed to pass for the class in which they sat, but were granted certificates of a lower grade.

Issue of certificates recommended as follows:

Provisional	
Final traction	
Third class stationary	75
Second class stationary	21
First class stationary	5
Total	366

One hundred and one permits were issued under section 34 of The Boilers Act, to enable employers to keep their plants in operation until certified men could be obtained.

One engineer has had his certificate suspended for 12 months on account of gross carelessness in the discharge of duty.

There has been a large increase in the number of both stationary boilers and plowing outfits during the year, and it has been impossible with only one assistant inspector to cover the whole of this division, though we have one automobile which has been used for six months to the best advantage in the district where results would be most satisfactory. The work as a whole is not up to date, as there still remain many boilers which have not been inspected during the year just ended.

Summary of boilers inspected and certificates issued therefor by me.

Inspected and certificates issued	
Total	202
•	
Condition of boilers inspected, good	112
Condition of boilers inspected, fair	82
Condition of boilers inspected, moderate	4
Condition of boilers inspected and condemned	4
Total	202

Following is the number of different types of boilers inspected:

Horizontal Return Tubular	46
Locomotive	123
Water Tube	
Robb Mumford	7
Robb Brady	4
Vertical Fire Tube	16
Marine	1
Total	202

I have to report four boiler accidents as follows:

(1) The firebox crown sheet of a locomotive type of boiler collapsed, caused by shortness of water.

While this was a very serious accident, I am pleased to say that no one was injured.

(2) Three horizontal return tubular boilers had bottoms bulged seriously, due to formation of scale in each case. Two of these boilers were in the same plant in Crow's Nest Pass district, while the third was in Medicine Hat.

Notification of these accidents only reached this office on December 30th, and the boilers were inspected on the day following. Investigation into the cause is now being made.

Your obedient servant,

NAT MARSHALL,

Inspector of Boilers.

LETHBRIDGE, January 2nd, 1913.

JOHN STOCKS, Esq.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I have the honour to submit to you my annual report for the year ending December 31st, 1912, in accordance with the requirements of section 8 of The Boilers Act.

Travelling throughout the district during the first five months of the year was done by team and rail. From the end of May until the beginning of November all travelling was done by automobile, while from November to the close of the year a great many of the journeys had to be made by team and rail, due to the bad state of the roads.

On the 31st of December I accompanied Inspector Marshall to the Crow's Nest Pass district, also to Medicine Hat to inspect three boilers which had been damaged by over-heating of plates. Though the damage to the boilers was serious, I am pleased to say no one was injured.

During the year just ended I inspected a total of 339 boilers, summarised as follows:

Boilers inspected and certificates issued3	19
Boilers inspected and no certificates issued	20
Total	39

Conditions of boilers inspected: Good, 270; moderate, 11; fair, 54; bad, 3; condemned, 1. Total, 339.

## Different types of boilers inspected:

Locomotive	221
Horizontal Tubular	56
Robb Mumford	13
Water Tube	19
Vertical Dry Top	20
Vertical Submerged Top	1
Vertical Flue	1
Horizontal Return Flue	8
Total	990

I have examined 24 candidates for provisional certificates during the year, to whom same were granted.

Twenty-three permits have been issued under section 34 of The Boilers Act, in order to enable employers to keep their plants going.

Your obedient servant,

WM. GRAY,

Assistant Inspector of Boilers.

CALGARY, January 14th, 1913.

JOHN STOCKS, Esq.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I have the honour to submit my annual report for the year 1912, as inspector of boilers for District No. 2, in accordance with section 8 of The Boilers Act.

At the beginning of the year I attended the annual conference of the district inspectors, held in Edmonton, for the purpose of discussing important matters affecting the operations of the branch generally throughout the whole of the province, returning to Calgary for district work on February 14th.

Commencing on February 27th began to hold a series of 15 advertised examinations of candidates for engineer's certificates in different parts of the district, and in addition to these, have held examinations in the public works office at Calgary on the first Saturday in each month throughout the year, with the exception of the February examination, which was held during the time I was absent from Calgary attending conference referred to above, Assistant Inspector Hodges taking charge during my absence.

Following is a summary showing the total number of applicants examined for engineer's certificates:

First class Second class Third class Provisional Renewals of provisional certificates Failed to qualify for certificates	7 150 225 30
m	
Total	481

Seventy-six permits were issued to owners during the year under section 34 of The Boilers Act.

During the year I visited 157 boilers and issued inspection certificates for 135, the remainder being out of commission, changing owners, etc.

Condition of boilers inspected and for which certificates were issued: Good, 62; very fair, 58; fair, 15.

Various types of boilers inspected:

Horizontal Tubular	25
Water Tube	12
H. F	5
Loco Firebox	
Vertical	
Return Tubular	
Lancashire	1
<u> </u>	
Total	135

Three H. F. boilers were discarded upon the expiration of inspection certificate owing to age and condition, 13 more were undergoing repairs and 6 were condemned.

The office work generally has been very heavy during the year—interviewing applicants, answering correspondence, and attending to the immediate requirements of a large number of contractors has kept me busy a great deal of the time; in fact, this work is steadily increasing and demands almost the whole of my time, consequently, with but a few exceptions, I have been unable to visit work lying outside the city.

My assistant, by means of the automobile supplied us last spring, has been able to cover a large portion of this district, though there still remain parts not visited, and taking into consideration the large increase in the number of stationary plants installed, others under course of erection, together with a very considerable number of new steam outfits shipped in by farmers and contracting firms during the year, more assistance will be necessary in order to satisfactorily cover the whole district. Neither my assistant or myself have taken any holidays owing to pressure of work.

Two accidents were reported to me during the year, one on a steam header, the other a fly-wheel rupture. Investigations into the cause of these revealed no evidence of negligence on the part of the parties concerned.

One conviction was secured for illegal operation, information laid and prosecution made under sub-clause 2 of section 18, The Boilers Act.

No fatalities or personal injuries of a serious or minor nature to report.

I have the honour to be, Sir,

Your obedient servant,

Jos. Buxton,

Inspector of Steam Boilers.

CALGARY, January 14th, 1913.

JOHN STOCKS, Esq.,

Deputy Minister of Public Works,

Edmonton, Alta.

Sir,—I have the honour to submit my report as assistant inspector No. 2 district, Calgary, for the year ending December 31st, 1912, as required by section 8 of The Boilers Act.

I have inspected 336 boilers and issued certificates for 327, the balance of 9 boilers being out of service for the present season. Three were condemned owing to condition of construction and age, one having to go out of service at the time of inspection, the other two being permitted to operate at reduced pressure until the expiration of certificates in order to enable the owners to continue operating while preparing for new installation. In addition to the above, three boilers were ordered to be shipped out of the province on account of their not complying with the regulations.

The following shows the types of boilers examined and condition of same:

52 Horizontal Tubular.9 Return Tubular.

220 Locomotive Firebox.

54 Vertical.

1 Water Tube.

Condition: Good, 118; very fair, 179; fair, 37; condemned 3; to be shipped out, 2.

Three special inspection trips were made at the request of owners, expenses, etc., being collected for same.

In February, during the time Mr. Buxton was attending the annual conference of the inspectors at Edmonton, I held the regular monthly examination of candidates in Calgary and recommended the issue of 1 heating, 8 provisional and 10 third class certificates. One candidate failed to pass.

During the year I also recommended the issuing of two renewals of provisional certificates, one provisional certificate and two heating certificates.

The automobile provided for this department has been of great service, enabling some of the scattered outfits to be visited for the first time in three years. A larger portion of the district has been visited than would have been possible by the use of steam. From the latter part of May to the end of the year auto mileage aggregates 4,895 miles.

Public opinion in connection with the visit of the boiler inspector has, in my experience, undergone a change, such visit being now generally appreciated, which indicates that the supervision of boilers and advice given to steam users is having a good effect, more especially so in the case of owners having long experience in the operation of boilers.

Two convictions were secured for illegal operation during the year.

I have the honour to be,

Your obedient servant,

E. S. Hodges,

Assistant Inspector of Boilers.

RED DEER, January 4th, 1913.

John Stocks, Esq.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I have the honour to submit to you the following report of the work done in this district under The Boilers Act for the year 1912, in compliance with section 8 of the Act.

On returning from my vacation I reported at Edmonton for instructions, after which I left for Red Deer and started out immediately to preside at the engineer's examinations which had been previously advertised for this district; these completed, I continued the work of inspection, returning to headquarters on the first Saturday of each month for the purpose of conducting the regular monthly examinations of candidates for engineer's certificates.

During the year I inspected most of the boilers in the western, northern and eastern parts of my district, but was not able to visit all the boilers in these parts, owing to the very great increase in the number shipped in during the year.

Continued satisfaction with the new boilers built to Alberta regulations and equipped with approved fittings is found amongst the owners and users.

The following tables give the number and condition of boilers inspected by me:

Boilers inspected and certificate issued	240
Boilers inspected and certificate issued, sec. 5, sub-sec. 3	1
Boilers inspected, shut down for repairs, certificate issued	6
Boilers inspected, shut down for repairs	5
Boilers inspected, no certificate issued, boiler not been used	1
Boilers inspected, condemned	5
Total number of boilers inspected	258

The boilers for which certificates of inspection were issued are rated as follows: Good, 189; very fair, 46; fair, 12. Total, 247.

The several types of boilers inspected are enumerated as follows:

Locomotive Firebox	81
Horizontal Tubular	
Vertical Tubular	
Return Tubular	
Internal Furnace Tubular	
Water Tube	1
Total 2	258

Sixteen advertised examinations for engineers were held in this district during the year, together with the regular monthly examinations at headquarters, excepting the months of January, February and March.

The following is a summary of the candidates examined for final certificates and the results:

GRADE	Passed	Failed and given second Prov.	Failed and given Prov.	Failed
Traction and Portable	47	34	0	0
Creamery	5	0	1	0
Third Class	6	0	1	2
Second Class	2	0	0	2

Total Candidates examined, 100.

The following is a list of the applicants for provisional certificates:

Examined and granted provisional certificate, good	21
Examined and granted provisional certificate, very fair	51
Examined and granted provisional certificate, fair	40
Examined and granted provisional certificate, poor	7
Not examined, granted under section 45	4
_	
Total provisional certificates issued	123
Examined for provisional and failed	15
Turned down for lack of experience	36
Total applicants	174

I have recommended the renewal of the following provisional certificates:

Traction ar	d Portable	30
Stationary		1

Twenty-six permits have been issued under section 34, a larger number than in any previous year for this district, there being more demand than ever for engineers during the threshing season, and I was compelled to issue these permits in order to prevent the work being retarded.

During the year I recommended the suspension of one final certificate for a period of six months, the holder thereof having, in my opinion, caused damage to a steam plant by his careless operation. I also refused to recommend renewal of certificates for the holders of nine expired provisional certificates, or allow them to sit for a higher certificate, this for careless operation, incompetency and insobriety which had been reported to me by the owners of the damaged boilers.

Considerable illegal operation of boilers has been carried on this year by men of the transient class who were employed in some instances by owners who neglected to ask these men to produce their engineer's certificate, and as a consequence of this, damage to plants has been the result. Several boilers have also been damaged through careless operation by men holding provisional certificates. Nine of these men have been prevented from further operation, as mentioned above. In matters of this kind it is almost impossible to get the owners to lay information according to section 50. They simply discharge the man from their employ and make no report either to the inspector or the department.

One person was prosecuted during the year for infringement of sub-section 3, section 32, of The Boilers Act.

No accidents of a serious nature have been reported to me as the result of defective boilers or the connections thereto in this district.

I have the honour to be, Sir,

Your obedient servant,

W. D. WATSON,

Boiler Inspector.

Edmonton, January 1st, 1913.

JOHN STOCKS, Esq.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I have the honour to submit the following report in connection with inspection of boilers in district No. 4 for the year 1912, in accordance with section 8 of The Boilers Act.

The inspectors' annual meeting convened in January and continued in session until February 14th, for the purposes of transacting the usual business for which this meeting is called.

On March 2nd I commenced to hold the series of advertised spring examinations, beginning at Strathcona and continuing at 17 other points in the district, finishing the last of these in Hourston's Hall at Edmonton on April 1st. At these examinations, together with those held in the Orange Hall, Strathcona, on the first Saturday of each month during the year, 363 candidates were examined for final and provisional certificates, divided as follows:

For first class engineer's certificate	4
For second class engineer's certificate	
For third class engineer's certificate	108
For traction final engineer's certificate	51
For provisional engineer's certificate	169
For renewal of provisional certificate	8
-	
Total	363

Forty-four permits were also issued for the operation of plants where it was impossible at the time to secure the services of a duly qualified engineer. These permits were issued under the provision of section 34 of The Boilers Act.

The demand for engineers holding second-class certificates still continues to be greater than the supply, a condition of things hard to meet unless those who are at present holding "thirds" show more desire to better their positions in the future than they have done in the past.

The threshing season revealed the fact that in some parts of the district there was a scarcity of traction engineers, consequent upon the large increase in the areas of farm lands brought under cultivation necessitating an increase in the number of threshing outfits, and not-withstanding the fact that many gasoline tractors have been shipped into

the district, meeting with more success than heretofore, both as plowing and threshing engines, the steam tractor still continues to be the more popular factor for such purposes, especially where fuel and water are reasonably available.

An ever increasing number of personal inquiries from newcomers to the province, together with answering letters and attending to "trouble calls" received from firms in town requiring immediate service, demand a very large portion of time which otherwise could be devoted to inspections.

Since completing the spring examinations in April, my work has been principally confined to the city or its immediate vicinity, Assistant Inspector Poole taking the outlying districts north and east, going as far north as Athabasca Landing, and east to the boundary of the province.

Following is a list of the different types of boilers inspected by me:

Locomotive type	47
Horizontal Tubular	34
Return Tubular	
Vertical	
Internal Furnace	_
Water Tube	12
<del>-</del>	
Total	146

Condition of above: Good, 102; fair, 42; poor, 2.

I have no accidents of a serious or minor nature to report in connection with the operation of steam boilers and engines.

One provisional certificate was cancelled for incompetency on the part of the holder.

There were four prosecutions in the district for illegal operation, the minimum penalty being imposed in each case.

I am, Sir,

Your obedient servant,

DAVID FRASER,

Inspector of Boilers.

Edmonton, January 14th, 1913.

JOHN STOCKS, Esq.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—I have the honour to submit to you the following report for the year ending December 31st, 1912, in accordance with section 8 of The Boilers Act.

At the commencement of the year I started out from Edmonton and inspected all the boilers along the route of the Grand Trunk Pacific Railway, west as far as mileage 92. These completed, I went north to

Athabasca Landing, working forty miles west, then followed the trail east and north to Lac la Biche, inspecting all the boilers which could be found in this section of the province. From Lac la Biche to Boyne and Saddle Lake, thence to St. Paul de Metis, and from there to Frog Lake.

I found a very large number of boilers scattered through this part of the country, mostly new ones built to approved designs from Alberta regulations.

Continuing south I crossed the river, travelling as far as Chauvin on the Grand Trunk Pacific, taking in a strip of country 15 miles wide with the object of inspecting every boiler known to be operating in this part of the district, finishing the year's work at Holden during the latter part of December.

Engineers were found to be very scare in many parts of the district visited. This will account for my having to issue 27 permits under section 34 of The Boilers Act.

Total number of boilers inspected and certificates issued therefor, 221.

Following is a list of the different types of boilers inspected:

Horizontal Tubular	
Locomotive	
Robb Mumford	4
Vertical	46
Water Tube	4
Robb Brady	1
Return Flue	9
_	
Total 2	221

I have no accidents of a serious or minor nature to report.

Your obedient servant.

F. P. POOLE,

Assistant Inspector of Boilers.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.

NAME	ADDRESS	NO. OF CERT.	D	ATE ISSU	
First Class					
Archlbald, Harry P	Lethbridge	*24	Aug.	15,	1900
Altham, Geo. H.		23	Apr.	8,	
Aitken, Robert C		15	June	29,	
Alexander, Harry G			Apr.	13,	
Brlsette, Narcisse			Mar.	28,	1888
Buxton, Jos		*35	Aug.	29,	1901
Birkett, Holland G		9	Sept.	5,	1906
Brlggs, Thos. L			Sept.		
Birrell, Andrew D			Aug.	28,	
Banks, Henry H			Dec.	14,	
Broughton, John Wm			Mar.	17,	1909
Bailey, Hy. Chas.			Feb.	11,	
Blackburn, Robt. Neale	Edmonton	57	Feb.	10,	1912
Cross, Wm		*2	Mar.	28,	1899
Cooper, Watt			Aug.	11,	1906
Caldwell, Robt.	1	*41	Oct.	16,	1903
Cross, Isaac E		*47	Oct.	15,	1904
Cope, Cuthbert E		24	Apr.	22,	1908
Christie, Alex'r G	Exshaw	19	Jan.	20,	1908
Collard, Albert N	Moose Jaw	21	Mar.	26,	1908
Carruthers, J. A	Calgary		Мау	26,	1911
Cunningham, Wm. J	Calgary	62	Apr.	26,	1912
Cooke, Robt. Pears	Edmonton	66 1	June	21,	1912
Davidson, James	Edmonton	38	Sept.	13,	1909
Davey, Edward	Medicine Hat	44	Apr.	25,	1910
Defieux, Chas. Albert I Dlck, Archibald I	Edmonton		June	17,	1912
		64	Мау	18,	1912
Evans, Dan	Edmonton	*12	Mar.	28,	1899
Ewing, David Edwards, Wm	Strathcona		Мау	3,	1909
	1	48 1	Vov.	7,	1910
Fraser, David	Strathcona	*20	Oct.	9,	1899
Finch, Theo. S		5 4	Aug.	10,	1906
Gale, Ernest A	Calgary (dup.)	29 1	Dec.	11,	1908
Goelinight, Leonard E E	Hillcrest		ſar.	30,	1910
Gray, Adam S	Calgary		Apr.	29.	1910
Gray, Wm. GL	ethbridge		lar.	14,	1912
Grifflths, Alf. J		4.	Dec.	17,	1912
Hubbard Sydney T	Calgary	41	Apr.	11,	1910
Hubbard, Sydney T. E. Helst, Wm. E. E.	Samonton		Apr.	18,	1904
Hobson, Francis W S	dimonton	*36 I	Dec.	18,	1901
Hill, John E	orraincona	*50 A	Apr.	1,	1905
Hargreaves, Thos. J	Fillerout	25 J	une	25,	1908
Higgins, Alex.	ethbridge	55	sept.	9,	1911
		59 N	Iar.	14,	1912
Isaac, WmC		14 Ј	une	20,	1907
Jackson, John A	trathcona	105		0.5	
Jones, Herbert W	Bellevue		et.	23,	1900
		30  I	ec.	11,	1908
Kelly, John E Kearsley, Geo E	demonton (no record)	<sub>T</sub>	ec.	3.	1905
		- 1	ept.	s, 5,	1906
Lunn, John TE	dmonton	ĺ	_		
Moore, Geo F	rank		Iay	26,	1905
Manufacti T. Tre		*55 J	uly	21,	1905
Marshall, Jas. WmC	algary	20 J	an.	20,	1908

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

The Steam	II Doners rice. Contin				
NAME	ADDRESS	NO. OF CERT.	DA Is		
First Class—Continued					
		32	Feb.	7,	1908
Marshaii, Nathaniei	'algory	7	Aug.	11,	1906
McFee, Norman			Nov.	22,	1904
McClymont, Jas. D			Sept.	18,	1908
McNaughton, Peter		*21	Oct.	9,	1899
McMillan, Hugh A	Edmonton	47	Oct.	22,	1910
Mudie, Alf. H	Diamond City	54	Aug.	24,	1911
Mainwaring, John H	Edmonton	58	Feb.	23,	1912
McMahon, Wiiliam	Taber	67	Dec.	17,	1912
Niven, Robt	Lethbridge	*23	July	28,	1900
O'Donneii, John E	Edmonton	37	July	5,	1909
Oliver, Ernest H		2	Apr.	30,	1906
Ritchie, Wm. Jas	Canmore	4	May	15,	1906
Rice, John H		1	Apr.	30,	1906
Reid, Arthur		39	Jan.	22,	1910
Richardson, Matthew C		56	Nov.	17,	1911
Scott, John	Lethhridge	*14	Mar.	28,	1899
Stapely, Tobias B		*45	Apr.	18,	1904
Stafford, David G		35	Mar.	30,	1909
Scott, James	Lilie	22	Apr.	7,	1908
Scott, Robert	Calgary	42	Apr.	11,	1910
Simpson, William	Coleman	52	June	20,	1911
Searie, William	Coal City	53	July	13,	1911
Strom, Theodore	Ca'gary	63	Apr.	30,	1912
Turgeon, Cleophas	Edmonton	*5	Mar.	28,	1899
Taylor, Geo. R	Strathcona	*11	Mar.	28,	1899
Turner, Orneldo H	Calgary	*34	Juiy,		1901
Tanner, Harry P	Taber	18	Dec.	26,	1907
Todd, Wm	Edmonton	33 61	Mar.	4, 25,	1909 1912
Tames, Edward			Apr. 		
Verdon, Jos. B		1	Nov.	13,	1910
Watson, Wm. D	Bankhead	3	May,	15,	1906
Watson, John T	Caigary	13	June	7,	1907
White, E. Lionel	Calgary	12	Apr.	6,	1907
Watson, Jas. S	Bankhead	46	Sept. 	23,	1910
Second Class			ł		
Anderson, C. J. B	Caigary	*109	Feb.	7,	1901
Angus, Robert			Oct	2,	1901
Aiderson, Robt	Coleman	ı	Apr.	22,	1908
Adair, Fred D.			May	10,	1906
Ailworth E. Mortimer	Colcory	81 208	June	19,	1907
Anderson, Andrew	Lathbridge	208	Aug. Sept.	15, 12,	1910 1910
Antrobus, Wm.	Edmonton		Nov.	17,	191
Brisette, Louis	Morinviile	193	Apr.	13,	191
Bradden, Wm. T.	Strathcona		Apr.	13,	191
Biamont, Antonio			Nov.	23,	191
Brice, Henry B			Aug.	8,	191
Bawtinheimer, Geo. H			Sept.		189
Biery, Chas.			Mar.	9,	190
Blatchford, K. A			Oct.	23,	190
Biain, J. W.	Strathcona	*106	Dec.	31,	1900
Bannerman, Jas. A	. Ked Deer	*162	Dec.	18,	190

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

	Somers ricecomm	······································			- u.u.
NAME	ADDRESS	NO. OF CERT.	1 -	ATE ISSU	
Second Class-Continued					
Browniow, Hy. A	Lacombe	*163	Dec.	23,	1903
Brewster, W. A	Edmonton	*195	May		
Bowden, H. S	Strathcona	*198	May		
Ballantyne, Robt	Caigary	*229	Mar.	14,	1904
Barnhouse, Wm	Edmonton	*244	May	26,	1904
Burkholder, Hy. J	Strathcona	*267	Oct.	15,	1904
Beamish, Crandell	Didsbury	118	Apr.	22,	1908
Bentley, Emerson D	Medicine Hat	17	Apr.	11,	1906
Burger, M. E	Red Deer	2	Sept.		1905
Bryson, Wm. J.	Medicine Hat	116	Apr.	14,	1908
Biair, Wm.	Liiie	178	Dec.	4,	1909
Berry, Stephen	Taber	25 127	Apr.	30,	1906
Brill, Geo	Red Deer	161	Apr.	22, 24,	1908 1909
Brown, David	Caigary	75	May	4,	1907
	Lethbridge	114	Apr.	8,	1908
Bagiey, Wm. S	Edmonton	156	June		1909
	Pincher Creek	170	Sept.	•	1909
	Caigary	173	Oct.	22,	1909
Brenton, Chas. J	Edmonton	234	Apr.	1,	1911
Bratz, Emil	Pincher Creek	272	Dec.	19,	1911
Brown, Robt.	Lundbreck	261	Nov.	17,	1911
Brooks, Fred	Edmonton	259	Nov.	10,	1911
Bailey, W. Edgar	Lethbridge	273	Dec.	19,	1911
Baron, Harry	Diamond City	283	Feb.	26,	1912
Beyer, Otto R.	Diamond City	312	Aug.	12,	1912
Benson, Frank H.	Edmonton	296	May	18,	1912
Beadle, Eikanah Wm	Edmonton	315 320	Aug. Sept.	22, 25,	1912 $1912$
Cope, Edmund, G. M	Lethbridge	-1	June	30,	1899
Ciark, W. Haroid	Edmonton		Oct.	9,	1899
	Lethbridge (dup)		Jan.	19,	1910
Chalmers, Waiter N	Edmonton		May	28,	1900
Cuilen, Jas. E	Caigary		Feb.	20,	1901
Converse, Stephen J	Ponoka		Mar.	6,	1903
	Strathcona	*197	May	13,	1903
	Red Deer	*239	Apr.	18,	1904
	Caigary (dup.)	150	Nov.	10,	1908
Cousins, Arthur	aigary	72	June	3,	1907
	Caigary	1	Apr.	30,	1906
A	Strathcona	1-	Oct.	25,	1906
	Red Deer		Nov.	2,	1906
	Laigary		Mar.	23,	1908
Cranston, Adam	algary		an.	20,	1908
Clinton, Otto M	dmonton	1	fan. Tune	22,	1907
Collins, Fred M.	ronk		une	14, 16,	1907
Campoen, Mai, L F	arlsviila		ot.		1907
Cowaii, Cederic A	ed Deer	. 1	ec.		1907 1907
Calder, Hector J	Alora PTV		Iar.	23,	1908
Carr, Aive B.	dmonton (dun)		une		1910
Cutting, Chas.	armilian (		lay		1908
Conard, Geo. Lewis	edicine Wat	(	an.		1909
Cruit, will	tratheone				1909
Carpenter, Willred	rank .				1910
Cruickshanks, Geo L	ethoridge		Iar.		1910
Commeyne, Florent E Candlish, William N	umonton				1912
Craig, Hugh S	almonton	(			1912
ATT Attaches Contact	a-sary	321 S	ept.	28,	1912

<sup>•</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

The Steam	ii Doners Met.—Comm				
NAME	ADDRESS	NO. OF CERT.	1	TE SSUI	
Second Class—Continued					
Dozey, Chas	Frank	218	Sept.	16,	1910
Duncombe, Walter	Taber		Sept.	16.	1910
Donaldson, Maxwell	Lethbridge (dup.)	182	Jan.	19,	1910
Doughty, Jas	Calgary	*143	July	25,	1901
Dresser, Bertram W	Wetaskiwin	*261	Oct.	15,	1904
Drader, John A	Pincher Creek	*290	Dec.	30,	1904
Dean, David	Calgary	*298 *000	Mar.	16,	1905
Drees, Max L	Edmonton (dup.)	*269 22	Nov.	30,	1905 1 <b>906</b>
Danner, Clifford	Edmonton	129	Apr. May	25, 7,	1908
Duncan, Andrew, sr Dick, Wm	High River		Jan.	14,	1907
Duncan, Andrew, jr	Edmonton		Sept.	18,	1908
Dunbar, Hy. C	Edmonton	123	Apr.	22,	1908
Donaldson, Samuel	Lethbridge	164	Sept.	15,	1909
Dodd, Jas	Edmonton	157	July	5,	1909
Daley, Wm	Strathcona		Aug.	27,	19 <b>0</b> 9
Dowsett, Nathaniel	Frank		Mar.	7,	191 <b>1</b>
Davies, Samuel	Elcan		Dec.	19,	1911
Donnelly, Jas	Bellevue		Jan.	16,	1912
Davidson, Eric	Calgary		May	22,	1912
Downing, Augustus	Red Deer		Apr.	26,	1912
Douglas, John H. W	)	991	Dec.	17,	1912
Evans, Hy. W	Anthracite	*28	Feb.	13,	1900
Emery, Ray C	Strathcona	*264	Oct.	15,	1904
Evans, Wm	Frank	7	Sept.	18,	1905
Eby, Josiah S			Oct.	24,	1907
Evans, Geo. A			Aug.	30,	1910
Edmonds, Thos. J			Mar.	20,	1911
Elderkin, Wm. J Eldridge, Jas. Thomas			Aug. Mar.	22, 19,	1911 1912
		(			
Frieman, Manfred Finch, Robt. H	Lethbridge		Nov.	4,	1912
Fraser, Wm	Strathcona	*184 *265	Oct. Oct.	10, 18,	1902 $1904$
Frame, Jas. F	Lethbridge	*219	Oct.	6,	1903
Fraser, Chas		i J	Mar.	16,	1905
Fidler, J. J	Calgary (dup.)		Aug.	6,	1908
Fleetwood, Howard A	Edmonton		Oct.	15,	1904
Fisk, James Geo	Fort Saskatchewan	*307	Apr.	14,	1905
Faulkner, Jos. W	Lundbreck	1 1	Aug.	11,	1906
Flan, Jas. Robt.	Calgary		July	16,	1907
Foote, Wm	Pincher Creek	1 1	July	16,	1907
Foster, Riley	Calgary Magrath	1	Nov.	14,	1907
Ferguson, Llwellyn, W	Strathcona		May June	18, 28,	1912 1912
Fabian, Henry B	Tofield		July	23,	1912
Grleve, David	Calgary		T7. L	~	4004
Griffiths, W. H.			Feb.	7,	1901
Garneau, Alexr.			May Oct.	14, 15,	1906 1 <b>9</b> 04
Grleve, Wm.			Oct.	28,	1904
Glbbs, Morley C			Mar.	16.	1905
Ginter, Wm. C.		- 4	Apr.	11,	1906
Garner, Anthony			May	14,	1906
Godson, Wm			June	26,	1907
Good, Wm.			Aug.	6,	1908
Golng, Philip S			Aprll	24,	1911
Graves, Jas. H			Mar.	7,	1911
Galloway, Alex.			<del>Se</del> pt. Oct.	8, 17.	1911 1912
	(	040	O'CL	11,	1912

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

Gourley, Fred R. Strathcona 316 Aug. 26, 1912 Hennegar, Ed. J. Edmonton 1919 Oct. 2, 1898 Haines, Alfred H. Edmonton 233 May 7, 1907 Hillis, Hy. Medicine Hat 424 May 23, 1906 Hillis, Hy. Medicine Hat 425 May 23, 1906 Hillis, Hy. Medicine Hat 427 May 23, 1906 Hillis, Hy. Medicine Hat 427 May 23, 1906 Hillis, Thos. Lethbridge 785 Sept. 29, 1906 Howell, Edward Battleford 137 May 30, 1901 Hillis, Thos. Lethbridge 1772 Aug. 18, 1904 Henneg, Michael Calgary 183 Oct. 10, 1902 Henneg, Michael Calgary 183 Oct. 10, 1902 Henney, Chas. Strathcona 234 Apr. 18, 1904 Henry, Chas. Strathcona 234 Apr. 18, 1904 Henry, Chas. Strathcona 2366 Mar. 31, 1906 Hackey, Thos. H. Ewarts 117 Apr. 14, 1908 Hackey, Thos. H. Evarts 117 Apr. 14, 1908 Hackey, Thos. H. Lloydminster 10 Nov. 16, 1902 Heacock, Jas. H. Calgary 71 June 3, 1907 Hay, Geo-Porter Pincher Creek 44 Aug. 11, 1906 Hendry, Wm A. Edmonton 64 May 15, 1906 Hendry, Wm A. Edmonton 64 May 15, 1906 Harris, Samuel D. Red Deer 62 May 7, 1907 Harris, V. H. Red Deer 62 May 7, 1907 Harris, V. H. Red Deer 62 May 7, 1907 Hill, John Strathcona 131 May 18, 1908 Hill, Marshall Macleod 189 Mar. 21, 1910 Henry, Walter F. Ponoka 224 Nov. 15, 1910 Howard, Ernest E. Conjuring Creek 201 June 1, 1910 Horn, James Lethbridge 187 Mar. 15, 1910 Horn, James Lethbridge 228 Feb. 26, 1912 Irwin, Lester J. Strathcona 266 Dec. 12, 1911 Judd, David H. Calgary 56 Jan. 22, 1907 Irvine, Albert E. Calgary 56 Jan. 22, 1907 Irvine, Alex Calgary 56 Jan. 22, 1907 Irvine, Albert E. Calgary 56 Jan. 22, 1907 Irvine, Albert E. Calgary 52 Jan. 32, 1907 Irvine, Alex	The Steam Bollers Act.—Continuea.									
Going, Ernest M.   Mountain View   290   Apr. 16, 1312   Gleaves, Geo. N.   Medicine Hat   314   Aug. 14, 1912   Gourley, Fred R.   Strathcona   316   Aug. 26, 1912   Hennegar, Ed. J.   Edmonton   *19   Oct. 2, 1895   Haines, Alfred H.   Edmonton   *33   May 7, 1900   Hillis, Hy.   Medicine Hat   *42   May 23, 1900   Hillis, Hy.   Medicine Hat   *42   May 23, 1900   Hiscon, Thos. S.   Lethbridge   *85   Sept. 29, 1900   Hiscon, Thos. S.   Lethbridge   *172   Aug. 18, 1903   Howell, Edward   Battleford   *137   May 30, 1901   Henneg, Michael   Calgary   *183   Oct. 10, 1902   Heantey, Wm.   Beaumont   *274   Oct. 4, 1904   Hentry, Chas.   Strathcona   *234   Apr. 18, 1904   Hentry, Chas.   Strathcona   *234   Apr. 18, 1904   Hentry, Chas.   Strathcona   *234   Apr. 18, 1904   Hentry, Chas.   Strathcona   *234   Apr. 14, 1908   Hendery, Thos. H.   Evarts   117   Apr. 14, 1908   Hackey, Thos. H.   Evarts   117   Apr. 14, 1908   Harper, Wm. H.   Lloydminster   10   Nov. 16, 1905   Hay, Geo. Porter   Pincher Creek   44   Aug. 11, 1906   Howe, Wm. Ed.   Sunny Slope   49   Sept. 8, 1904   Hendry, Wm. A.   Edmonton   64   May 15, 1908   Hendry, Wm. A.   Edmonton   64   May 17, 1907   Harris, Samuel D.   Red Deer   63   May 7, 1907   Harris, V. H.   Red Deer   63   May 7, 1907   Harris, V. H.   Red Deer   63   May 7, 1907   Hill, John   Strathcona   131   May 18, 1908   Henry, Waiter F.   Ponoka   224   Nov. 15, 1910   Howard, Ernest E.   Conjuring Creek   201   June 1, 1910   Horn, James   Lethbridge   187   Mar. 15, 1911   Honges, Elmer S.   Medicine Hat   198   Mar. 21, 1910   Honderson, Norman   Bellevue   230   Mar. 11, 1911   Holmes, Waiter, C.   Calgary   165   Sept. 15, 1903   Irwin, Alexer.   Calgary   166   May 20, 1907   Hill, Marshall   Bassano   246   June 30, 1911   Holmon, Pontus   Lewisville   235   Apr. 5, 1911   Jack, William   Bassano   246   June 30,	NAME	ADDRESS		1						
Going, Ernest M.   Mountain View   290   Apr. 16, 1312   Gleaves, Geo. N.   Medicine Hat   314   Aug. 14, 1912   Gourley, Fred R.   Strathcona   316   Aug. 26, 1912   Hennegar, Ed. J.   Edmonton   *19   Oct. 2, 1895   Haines, Alfred H.   Edmonton   *33   May 7, 1900   Hillis, Hy.   Medicine Hat   *42   May 23, 1900   Hillis, Hy.   Medicine Hat   *42   May 23, 1900   Hiscon, Thos. S.   Lethbridge   *85   Sept. 29, 1900   Hiscon, Thos. S.   Lethbridge   *172   Aug. 18, 1903   Howell, Edward   Battleford   *137   May 30, 1901   Henneg, Michael   Calgary   *183   Oct. 10, 1902   Heantey, Wm.   Beaumont   *274   Oct. 4, 1904   Hentry, Chas.   Strathcona   *234   Apr. 18, 1904   Hentry, Chas.   Strathcona   *234   Apr. 18, 1904   Hentry, Chas.   Strathcona   *234   Apr. 18, 1904   Hentry, Chas.   Strathcona   *234   Apr. 14, 1908   Hendery, Thos. H.   Evarts   117   Apr. 14, 1908   Hackey, Thos. H.   Evarts   117   Apr. 14, 1908   Harper, Wm. H.   Lloydminster   10   Nov. 16, 1905   Hay, Geo. Porter   Pincher Creek   44   Aug. 11, 1906   Howe, Wm. Ed.   Sunny Slope   49   Sept. 8, 1904   Hendry, Wm. A.   Edmonton   64   May 15, 1908   Hendry, Wm. A.   Edmonton   64   May 17, 1907   Harris, Samuel D.   Red Deer   63   May 7, 1907   Harris, V. H.   Red Deer   63   May 7, 1907   Harris, V. H.   Red Deer   63   May 7, 1907   Hill, John   Strathcona   131   May 18, 1908   Henry, Waiter F.   Ponoka   224   Nov. 15, 1910   Howard, Ernest E.   Conjuring Creek   201   June 1, 1910   Horn, James   Lethbridge   187   Mar. 15, 1911   Honges, Elmer S.   Medicine Hat   198   Mar. 21, 1910   Honderson, Norman   Bellevue   230   Mar. 11, 1911   Holmes, Waiter, C.   Calgary   165   Sept. 15, 1903   Irwin, Alexer.   Calgary   166   May 20, 1907   Hill, Marshall   Bassano   246   June 30, 1911   Holmon, Pontus   Lewisville   235   Apr. 5, 1911   Jack, William   Bassano   246   June 30,	Second Class-Continued									
Gleaves, Geo, N. Medicine Hat 314 Aug. 14, 1912 Gourley, Fred R. Strathcona 316 Aug. 26, 1913 Gourley, Fred R. Strathcona 417, 1904 Gourley, Fred R. Stept. 29, 1906 Gourley, Fred R. Stept. 29, 1906 Gourley, Fred R. Strathcona 418, 1904 Gourley, Fred R. Strathcona 418, 1904 Gourley, Fred R. Strathcona 418, 1904 Gourley, Fred R. Strathcona 4234 Apr. 18, 1904 Gourley, Fred R. Strathcona 4234 Apr. 1905 Gourley, Fred R. Strathcona 4234 Apr. 1906 Gourley, Fred R. Strathcona 424 Apr. 1906 Gourley, Fred R. Strathcona 424 Apr. 1906 Gourley, Fred R. Strathcona 424 Apr. 1907 Gourley, Fred R. Strathcona 425 Apr. 1907 Gourley, Fred R. Strathcona 425 Apr. 1907 Gourley, Fred R. Strathcona 426 Apr. 1907 Gourley, Fred R. Strathcona 426 Apr. 1907 Gourley, Fred R. Strathcona 427 Apr. 1907 Gourley, Fred R. Strathcona 427 Apr. 1907 Gourley, Fred R. Strathcona 428 Apr. 1907 Gourley, Fred R. Strathcona 428 Apr. 1907 Gourley, Fred R. Strathcona 428 Apr. 1907 Gourley, Fred R. Strathcona 424 Apr. 1907 Gourley, Fred R. Strathcona 426 Apr. 1907 Gourley, Fred R. Strathcona 426 Apr. 1907 Gourley, Apr. 1907 G		Mountain View	290	Apr.	16.	1912				
Gourley, Fred R. Strathcona 316   Aug. 26, 1912   Hennegar, Ed. J. Edmonton 1919   Oct. 2, 1899   Haines, Alfred H. Edmonton 233   May 7, 1907   Hillis, Hy. Medicine Hat 442   May 23, 1906   Hicklik, John W. Calgary 79   Sept. 29, 1906   Hiscon, Thos. S. Lethbridge 85   Sept. 29, 1906   Hillis, Thos. Lethbridge 1172   Aug. 18, 1904   Henneg, Michael Calgary 1183   Oct. 10, 1902   Heantey, Wm. Beaumont 274   Oct. 4, 1908   Hentry, Chas. Strathcona 234   Apr. 18, 1904   Hutchings, H. E. Edmonton 306   Mar. 31, 1905   Hackey, Thos. H. Evarts 117   Apr. 14, 1908   Harper, Wm. H. Lloydminster 10   Nov. 16, 1908   Headey, Wm. Ed. Sunny Slope 44   Sept. 8, 1906   Hendry, Wm. A. Edmonton 64   May 15, 1906   Hay, Geo Porter Pincher Creek 444   Aug. 11, 1906   Harris, Samuel D. Red Deer 62   May 7, 1907   Harris, V. H. Red Deer 62   May 7, 1907   Harris, Samuel D. Red Deer 62   May 7, 1907   Hockin, John 50   Edmonton 91   Oct. 15, 1906   Hendry, Walter F. Ponoka 224   Nov. 15, 1910   Henry, Walter F. Ponoka 224   Nov. 15, 1910   Henry, Walter F. Ponoka 224   Nov. 15, 1910   Horn, James Lethbridge 187   Mar. 15, 1910   Horn, James Lethbridge 187   Mar. 15, 1910   Horn, James Lethbridge 187   Mar. 15, 1910   Hologes, Elmer S. Medicine Hat 198   Apr. 25, 1910   Hologes, Elmer S. Medicine Hat 198   Apr. 25, 1910   Hologes, Elmer S. Medicine Hat 198   Apr. 25, 1910   Irwin, Lester J. Strathcona 266   Dec. 12, 1911   Hologes, Elmer S. Medicine Hat 198   Apr. 25, 1910   Irwin, Lester J. Strathcona 266   Dec. 12, 1911   Jacob, Arthur Royal View 286   Mar. 18, 1912   Holmes, Walter, C. Calgary 56   Jan. 22, 1907   Irwin, Lester J. Strathcona 266   Dec. 12, 1911   Jacob, Arthur Royal View 303   June 28, 1912   Irwin, Lester J. Strathcona 266   Dec. 12, 1911   Jacob, Arthur Royal View 303   June 28, 1912   Irwin, Lester J. Strathcona 266   Dec. 15, 1903   Jacob, Arthur Royal View 303   June 28, 1912   Irwin, Lester J. Strathcona 266   Dec. 15, 1901   Jacob, Arthur Royal View 303   June 28, 1912   Irwin, Lester J. Strathcona 266				1		1912				
Haines, Alfred H. Edmonton						1912				
Haines, Alfred H. Edmonton	Hennegar, Ed. J	Edmonton	*19	Oct.	2.	1899				
Hicklik, John W.   Calgary   *79   Sept. 29, 1900   Hisson, Thos. S.   Lethbridge   *85   Sept. 29, 1900   Howell, Edward   Battleford   *137   May 30, 1901   Henler, Chas.   Calgary   *183   Oct. 10, 1904   Henneg, Michael   Calgary   *183   Oct. 10, 1904   Henry, Chas.   Strathcona   *234   Apr. 18, 1902   Heatley, Wm.   Beaumont   *274   Oct. 4, 1904   Hutchings, H. E.   Edmonton   *306   Mar. 31, 1905   Hackey, Thos. H.   Evarts   117   Apr. 14, 1908   Harper, Wm. H.   Lloydminster   10   Nov. 16, 1908   Hearocok, Jas. H.   Calgary   711   June   3, 1907   Hearocok, Jas. H.   Calgary   711   June   3, 1907   Hendry, Wm. A.   Edmonton   64   May   15, 1906   Hendry, Wm. A.   Edmonton   64   May   15, 1906   Harris, Samuel D.   Red Deer   62   May   7, 1907   Harris, Samuel D.   Red Deer   63   May   7, 1907   Harris, V. H.   Red Deer   63   May   7, 1907   Hill, John   Strathcona   131   May   18, 1908   Henry, Walter F.   Ponoka   131   May   18, 1908   Henry, Walter F.   Ponoka   224   Nov. 15, 1910   Howard, Ernest E.   Conjuring Creek   201   June   1, 1910   Horn, James   Lethbridge   187   Mar. 15, 1910   Horn, Alexr.   Calgary   165   Sept. 12, 1911   Hope, George   Royal View   286   Mar. 18, 1912   Holford, Jos C.   Lac Ste Anne   206   July   29, 1910   Horn, Alexr.   Calgary   165   Sept. 16, 1909   Irwin, Lester J.   Strathcona   *263   Oct. 15, 1904   Irwin, Alexr.   Calgary   165   Sept. 16, 1909   Jackson, James O, Inga   60   Apr. 8, 1907   Jackson, James O, Inga   60   Apr. 8, 1907   Kerr, Wm.   Lethbridge (dup.)   183   Jan. 19, 1910   Kerr, Wm.   Lethbridge (dup.)   183   Jan. 19, 1910   Kerr, Wm.   Lethbridge (dup.)   183   Jan. 19, 1910   Kerr, Wm.		1				1900				
Hiscon, Thos. S.   Lethbridge   *95   Sept. 29, 1900	Hillis, Hy	Medicine Hat	*42	May	23,	1900				
Howell, Edward		Calgary	*79	Sept.	29,	1900				
Hillis, Thos   Lethbridge   *172   Aug. 18, 1905   Hendey, Wm   Beaumont   *274   Oct. 10, 1902   Henty, Chas.   Strathcona   *234   Apr. 18, 1906   Henty, Chas.   Strathcona   *234   Apr. 18, 1906   Hackey, Thos. H.   Edmonton   *306   Mar. 31, 1905   Hackey, Thos. H.   Evarts   117   Apr. 14, 1908   Harper, Wm. H.   Lloydminster   10   Nov. 16, 1905   Hackey, Thos. H.   Calgary   71   June   3, 1907   Hay, Geo. Porter   Pincher Creek   44   Aug. 11, 1906   Howe, Wm. Ed.   Sunny Slope   49   Sept. 8, 1906   Hendry, Wm. A.   Edmonton   64   May   15, 1906   Harris, Samuel D.   Red Deer   62   May   7, 1907   Harris, Samuel D.   Red Deer   63   May   7, 1907   Harris, V. H.   Red Deer   64   May   15, 1908   Harris, V. H.   Red Deer   64   May   15, 1908   Harris, V. H.				-		1900				
Henneg, Michael   Calgary   *183   Oct.   10, 1902     Hearley, Wm.   Beaumont   *274   Oct.   4, 1904     Henry, Chas.   Strathcona   *224   Apr.   18, 1904     Hutchings, H. E.   Edmonton   *306   Mar.   31, 1905     Hackey, Thos. H.   Evarts   117   Apr.   14, 1908     Harper, Wm. H.   Lloydminster   10   Nov.   16, 1905     Harper, Wm. H.   Calgary   71   June   3, 1907     Hay, Geo. Porter   Pincher Creek   44   Aug.   11, 1906     Howe, Wm. Ed.   Sunny Slope   49   Sept.   8, 1906     Hendry, Wm. A.   Edmonton   64   May   15, 1906     Harris, Samuel D.   Red Deer   62   May   7, 1907     Harris, V. H.   Red Deer   63   May   7, 1907     Harris, V. H.   Red Deer   63   May   7, 1907     Hill, John   Strathcona   131   May   18, 1908     Henry, Walter F.   Ponoka   224   Nov.   15, 1910     Henry, Walter F.   Ponoka   224   Nov.   15, 1910     Howard, Ernest E.   Conjuring Creek   201   June   1, 1910     Horn, James   Lethbridge   187   Mar.   15, 1910     Holderson, Norman   Bellevue   230   Mar.   11, 1911     Hope, George   Royal View   286   Mar.   18, 1912     Holmes, Walter, C.   Calgary   282   Feb. 26, 1912     Irwin, Lester J.   Strathcona   *270   Oct.   15, 1907     Irvine, Alexr.   Calgary   56   Sept.   12, 1910     Jundd, David H.   Calgary   56   Sept.   15, 1903     Jaratt, Edward   Strathcona   *263   Oct.   15, 1903     Jaratk, Edward   Strathcona   *263   Oct.   15, 1903     Jack, William   Bassano   246   June   3, 1912     Kerr, Wm.   Lethbridge (dup.)   183   Jan.   19, 1910     Kerr, Wm.   Lethbridge   244   Sept.   2, 1911						1901				
Heatley, Wm										
Henry Chas.   Strathcona   *234   Apr.   18, 1904     Hutchings, H. E.   Edmonton   *306   Mar.   31, 1905     Hackey, Thos. H.   Evarts   117   Apr.   14, 1908     Harper, Wm. H.   Lloydminster   10   Nov.   16, 1906     Heacock, Jas. H.   Calgary   71   June   3, 1907     Hay, Geo. Porter   Pincher Creek   44   Aug.   11, 1906     Howe, Wm. Ed.   Sunny Slope   49   Sept.   8, 1900     Hendry, Wm. A.   Edmonton   64   May   15, 1906     Harris, Samuel D.   Red Deer   62   May   7, 1907     Harris, V. H.   Red Deer   63   May   7, 1907     Harris, V. H.   Red Deer   63   May   7, 1907     Hockin, John   Edmonton   91   Oct.   15, 1907     Hill, John   Strathcona   131   May   18, 1908     Henry, Walter F.   Ponoka   224   Nov.   15, 1910     Henry, Walter F.   Ponoka   224   Nov.   15, 1910     Howard, Ernest E.   Conjuring Creek   201   June   1, 1910     Horn, James   Lethbridge   187   Mar.   15, 1910     Horn, James   Lethbridge   187   Mar.   15, 1910     Holdoges, Ellmer S.   Medicine Hat   198   Apr.   25, 1910     Holford, Jos. C.   Lac Ste. Anne   206   July   29, 1910     Hope, George   Royal View   286   Mar.   11, 1911     Hope, George   Royal View   286   Mar.   18, 1912     Holmes, Walter, C.   Calgary   282   Feb.   26, 1912     Irwin, Lester J.   Strathcona   *270   Oct.   15, 1903     Irwin, Lester J.   Strathcona   *266   Dec.   12, 1911     Judd, David H.   Calgary   165   Sept.   15, 1903     Jarratt, Edward   Strathcona   *266   Oct.   15, 1903     Jack, William   Bassano   246   June   30, 1911     Jack, William   Bassano   246   Sune   30, 30   June   28, 1912     Livingstone, Jas. C.   Lethbridge   226   Dec.   8, 1910     LeBre			,	_						
Hutchings, H. E.   Edmonton   *306   Mar. 31, 1905   Hackey, Thos. H.   Evarts   117   Apr. 14, 1906   Hackey, Thos. H.   Evarts   117   Apr. 14, 1906   1905   Hacecock, Jas. H.   Calgary   71   June 3, 1907   Hay, Geo. Porter   Pincher Creek   44   Aug. 11, 1906   Howe, Wm. Ed.   Sunny Slope   49   Sept. 8, 1906   Hendry, Wm. A.   Edmonton   64   May 15, 1906   Harris, Samuel D.   Red Deer   62   May 7, 1907   Harris, V. H.   Red Deer   63   May 7, 1907   Harris, V. H.   Red Deer   213   May 12, 1918   Harris, V. H.   Red Deer   224   Nov. 15, 1910   Harris, V. H.   Red Deer   230   Mar. 15, 1910   Harris, V. H.   Red Deer   246   June 1, 1910   Harris, V. H.   Red Deer   256   Jan. 22, 1907   Irvine, Alexr.   Calgary   165   Sept. 15, 1903   Jackson, James O.   Inga   60   Apr. 8, 1907   Jackson, Jackson, Jackson, Jackson, Jackson,		,								
Hackey, Thos. H.			,	-						
Harper, Wm. H.										
Heacock, Jas. H.   Calgary   71   June   3, 1907   Hay, Geo. Porter   Pincher Creek   44   Aug.   11, 1906   Howe, Wm. Ed.   Sunny Slope   49   Sept.   8, 1906   Hendry, Wm. A.   Edmonton   64   May   15, 1906   Harris, Samuel D.   Red Deer   62   May   7, 1907   Hockin, John   Edmonton   91   Oct.   15, 1907   Hockin, John   Edmonton   91   Oct.   15, 1907   Hill, John   Strathcona   131   May   18, 1908   Hill, Marshall   Macleod   189   Mar.   21, 1910   Henry, Walter F.   Ponoka   224   Nov.   15, 1910   Howard, Ernest E.   Conjuring Creek   201   June   1, 1910   Howard, Ernest E.   Conjuring Creek   201   June   1, 1910   Hodges, Elmer S.   Medicine Hat   198   Apr.   25, 1910   Holford, Jos. C.   Lac Ste. Anne   206   July   29, 1910   Holford, Jos. C.   Lac Ste. Anne   206   July   29, 1910   Holford, Jos. C.   Calgary   282   Feb.   26, 1912   Holms, Walter, C.   Calgary   282   Feb.   26, 1912   Irwin, Lester J.   Strathcona   *270   Oct.   15, 1704   Irving, Albert E.   Calgary   56   Jan.   22, 1907   Irvine, Albert E.   Calgary   56   Jan.   22, 1907   Irging, Albert E.   Calgary   56   Jan.   22, 1907   Irging, Albert E.   Calgary   56   Jan.   22, 1907   Irging, Albert E.   Calgary   56   Jan.   22, 1907   Irvine, Alexn.   Calgary   56   Jan.   23, 1907   Jackson, James O.   Inga   60   Apr.   8, 1907   Jackson, Jame				_						
Hay, Geo. Porter		( -								
Howe, Wm Ed.										
Hendry, Wm A			1	_		1906				
Harris, Samuel D.   Red Deer   62   May 7, 1907     Harris, V. H.   Red Deer   63   May 7, 1907     Hockin, John   Edmonton   91   Oct. 15, 1907     Hill, John   Strathcona   131   May 18, 1908     Hill, Marshall   Macleod   189   Mar. 21, 1910     Henry, Walter F.   Ponoka   224   Nov. 15, 1910     Hilton, Wm. H.   Taber   213   Sept. 12, 1910     Howard, Ernest E.   Conjuring Creek   201   June 1, 1910     Horn, James   Lethbridge   187   Mar. 15, 1916     Hodges, Elmer S.   Medicine Hat   198   Apr. 25, 1910     Holford, Jos. C.   Lac Ste. Anne   206   July 29, 1910     Hope, George   Royal View   286   Mar. 11, 1911     Hope, George   Royal View   286   Mar. 18, 1912     Holmes, Walter, C.   Calgary   282   Feb. 26, 1912     Irwin, Lester J.   Strathcona   *270   Oct. 15, 1304     Irving, Albert E.   Calgary   56   Jan. 22, 1907     Irying, Alexr.   Calgary   56   Jan. 22, 1907     Inglis, George   Edmonton   266   Dec. 12, 1911     Judd, David H.   Calgary   *161   Oct. 5, 1901     Jarratt, Edward   Strathcona   *263   Oct. 15, 1903     Jackson, James O.   Inga   60   Apr. 8, 1907     Johnson, Pontus   Lewisville   235   Apr. 5, 1911     Jack, William   Bassano   246   June 30, 1911     Jack, William   Bassano   246   June 30, 1911     Jacob, Arthur   Royal View   303   June 28, 1912     Kerr, Wm   Lethbridge (dup.)   183   Jan. 19, 1910     Kadlec, J. J.   Wetasklwin   *236   Apr. 18, 1904     Kallam, Robt. C.   Red Deer   65   May 20, 1907     Kelth, Edward C.   Lille   226   Dec. 8, 1910     Krammer, Frank   Calgary   *181   Oct. 16, 1900     Krammer, Frank   Calgary   *181   Oct. 17, 1905     Lang, Jas   Okotoks   *301   Mar. 17, 1905     Lang, Jas   Okotoks   *301   Mar. 17, 1905     Lang, Jas   Okotoks   *301   Mar. 17, 1905     Lang, John   Okotoks   *301   Mar. 17, 1905     Lang, John   Okotoks   *308   Apr. 14, 1905     Lang, John   Okotoks   *308   Apr. 14, 1905     Lang, John   Okotoks   *308   Apr. 14, 1905     Okotoks   *308   Apr. 14, 1905     Calgary   *182   Oct. 10, 1902     Lang, John	Hendry, Wm A	Edmonton		_		1906				
Hockin, John	Harris, Samuel D		62	Мау		1907				
Hill, John		Red Deer	63	May	7,	1907				
Hill, Marshall	*		91	Oct.	15,	1907				
Henry, Walter F.			•			1908				
Hilton, Wm. H.   Taber   213   Sept. 12, 1910						1910				
Howard, Ernest E.   Conjuring Creek   201   June   1, 1910   Horn, James   Lethbridge   187   Mar.   15, 1910   Medicine Hat   198   Apr.   25, 1910   Medicine Hat   198   Apr.   266   July   29, 1910   Medicine Hat   198   Mar.   11, 1911   Medicine Hat   198   Mer.   11, 1911   Medicine Hat   198   Mer.   11, 1911   Medicine Hat   198   Mer.   12, 1911   Medicine Hat   198   Mer.   12, 1912   Mer.   10, 10										
Horn, James   Lethbridge   187   Mar. 15, 1910     Hodges, Elmer S.										
Hodges, Elmer S.			, ,							
Holford, Jos. C.   Lac Ste. Anne   206   July   29, 1910     Henderson, Norman   Bellevue   230   Mar.   11, 1911     Hope, George   Royal View   286   Mar.   18, 1912     Holmes, Walter, C.   Calgary   282   Feb.   26, 1912     Irwin, Lester J.   Strathcona   *270   Oct.   15, 1504     Irving, Albert E.   Calgary   56   Jan.   22, 1907     Irvine, Alexr.   Calgary   165   Sept.   15, 1909     Inglls, George   Edmonton   266   Dec.   12, 1911     Judd, David H.   Calgary   *161   Oct.   5, 1901     Jarratt, Edward   Strathcona   *263   Oct.   15, 1903     Jackson, James O.   Inga   60   Apr.   8, 1907     Jack, William   Bassano   246   June   30, 1911     Jacob, Arthur   Royal View   303   June   28, 1912     Kerr, Wm.   Lethbridge (dup.)   183   Jan.   19, 1910     Kowalczyck, Antoine   St. Paul de Metls   *144   Feb.   16, 1900     Kaddec, J. J.   Wetasklwin   *236   Apr.   18, 1904     Kellham, Robt. C.   Red Deer   65   May   20, 1907     Kelth, Edward C.   Lille   226   Dec.   8, 1910     Krammer, Frank   Calgary   293   May   1, 1912     Llvingstone, Jas. C.   Lethbridge   214   Sept.   12, 1910     Lang, Jas.   Okotoks   *301   Mar.   17, 1905     Lacey, Wm. R   Calgary   *182   Oct.   10, 1902     Lamb, Herb, David   Frank   41   Aug.   11, 1906     Lope, John   Okotoks   *308   Apr.   14, 1905     Apr. 14, 1905   Apr.   14, 1905     Condition   *308										
Henderson, Norman   Bellevue   230   Mar. 11, 1911   Hope, George   Royal View   286   Mar. 18, 1912   Holmes, Walter, C.   Calgary   282   Feb. 26, 1912				-						
Hope, George										
Holmes, Walter, C.   Calgary   282   Feb. 26, 1912										
Irvine, Albert E.   Calgary   56   Jan.   22, 1907   Irvine, Alexr.   Calgary   165   Sept.   15, 1909   Inglis, George   Edmonton   266   Dec.   12, 1911   Judd, David H.   Calgary   *161   Oct.   5, 1901   Jarratt, Edward   Strathcona   *263   Oct.   15, 1903   Jackson, James O.   Inga   60   Apr.   8, 1907   Johnson, Pontus   Lewisville   235   Apr.   5, 1911   Jack, William   Bassano   246   June   30, 1911   Jacob, Arthur   Royal View   303   June   28, 1912   Kerr, Wm.   Lethbridge (dup.)   183   Jan.   19, 1910   Kowalczyck, Antoine   St. Paul de Metls   *144   Feb.   16, 1900   Kadlec, J. J.   Wetaskiwin   *236   Apr.   18, 1904   Kowalczyck, Antoine   St. Paul de Metls   *144   Feb.   16, 1900   Kadlec, J. J.   Wetaskiwin   *236   Apr.   18, 1904   Krammer, Frank   Calgary   293   May   1, 1912   Livingstone, Jas.   Lethbridge   226   Dec.   8, 1910   Lang, Jas.   Okotoks   *301   Mar.   17, 1905   Lacey, Wm. R.   Calgary   *182   Oct.   10, 1902   Lamb, Herb. David   Frank   Edmonton   *308   Apr.   14, 1905   Long, John   *308	Holmes, Walter, C					1912				
Irvine, Albert E.   Calgary   56   Jan.   22, 1907   Irvine, Alexr.   Calgary   165   Sept.   15, 1909   Inglis, George   Edmonton   266   Dec.   12, 1911   Judd, David H.   Calgary   *161   Oct.   5, 1901   Jarratt, Edward   Strathcona   *263   Oct.   15, 1903   Jackson, James O.   Inga   60   Apr.   8, 1907   Johnson, Pontus   Lewisville   235   Apr.   5, 1911   Jack, William   Bassano   246   June   30, 1911   Jacob, Arthur   Royal View   303   June   28, 1912   Kerr, Wm.   Lethbridge (dup.)   183   Jan.   19, 1910   Kowalczyck, Antoine   St. Paul de Metls   *144   Feb.   16, 1900   Kadlec, J. J.   Wetaskiwin   *236   Apr.   18, 1904   Kowalczyck, Antoine   St. Paul de Metls   *144   Feb.   16, 1900   Kadlec, J. J.   Wetaskiwin   *236   Apr.   18, 1904   Krammer, Frank   Calgary   293   May   1, 1912   Livingstone, Jas.   Lethbridge   226   Dec.   8, 1910   Lang, Jas.   Okotoks   *301   Mar.   17, 1905   Lacey, Wm. R.   Calgary   *182   Oct.   10, 1902   Lamb, Herb. David   Frank   Edmonton   *308   Apr.   14, 1905   Long, John   *308	Irwin, Lester J	Strathcona	*270	Oct.	15.	1904				
Irvine, Alexr.   Calgary   165   Sept. 15, 1909   Inglls, George   Edmonton   266   Dec. 12, 1911	Irving, Albert E	Calgary								
Inglis, George						1909				
Jarratt, Edward         Strathcona         *263         Oct. 15, 1903           Jackson, James O.         Inga         60         Apr. 8, 1907           Johnson, Pontus         Lewlsville         235         Apr. 5, 1911           Jack, William         Bassano         246         June 30, 1911           Jacob, Arthur         Royal View         303         June 28, 1912           Kerr, Wm.         Lethbridge (dup.)         183         Jan. 19, 1910           Kidd, Fredk.         Calgary         *62         June 14, 1900           Kowalczyck, Antoine         St. Paul de Metis         *144         Feb. 16, 1900           Kadlec, J. J.         Wetasklwin         *236         Apr. 18, 1904           Kelth, Edward C.         Red Deer         65         May 20, 1907           Kelth, Edward C.         Lille         226         Dec. 8, 1910           Krammer, Frank         Calgary         293         May 1, 1912           Llvingstone, Jas. C.         Lethbridge         214         Sept. 12, 1910           Lang, Jas.         Okotoks         *301         Mar. 17, 1905           Lacey, Wm. R.         Calgary         *182         Oct. 10, 1902           Lamb, Herb. David         Frank         41	Inglis, George	Edmonton			12,	1911				
Jarratt, Edward         Strathcona         *263         Oct.         15, 1903           Jackson, James O.         Inga         60         Apr.         8, 1907           Johnson, Pontus         Lewlsville         235         Apr.         5, 1911           Jack, William         Bassano         246         June         30, 1911           Jacob, Arthur         Royal View         303         June         28, 1912           Kerr, Wm.         Lethbridge (dup.)         183         Jan.         19, 1910           Kidd, Fredk.         Calgary         *62         June         14, 1900           Kowalczyck, Antoine         St. Paul de Metls         *144         Feb.         16, 1900           Kadlec, J. J.         Wetasklwin         *236         Apr.         18, 1904           Killam, Robt. C.         Red Deer         65         May         20, 1907           Kelth, Edward C.         Lille         26         Dec.         8, 1910           Krammer, Frank         Calgary         293         May         1, 1912           Llvingstone, Jas. C.         Lethbridge         21         Sept.         12, 1910           Lang, Jas.         Okotoks         *301         Mar.         17, 19		Calgary	*161	Oct.	5.	1901				
Jackson, James O.         Inga         60         Apr. 8, 1907           Johnson, Pontus         Lewlsville         235         Apr. 5, 1911           Jack, William         Bassano         246         June 30, 1911           Jacob, Arthur         Royal View         303         June 28, 1912           Kerr, Wm.         Lethbridge (dup.)         183         Jan. 19, 1910           Kidd, Fredk.         Calgary         *62         June 14, 1900           Kowalczyck, Antoine         St. Paul de Metis         *144         Feb. 16, 1900           Kadlec, J. J.         Wetasklwin         *236         Apr. 18, 1904           Killiam, Robt. C.         Red Deer         65         May 20, 1907           Kelth, Edward C.         Lille         226         Dec. 8, 1910           Krammer, Frank         Calgary         293         May 1, 1912           Llvingstone, Jas. C.         Lethbridge         214         Sept. 12, 1910           Lang, Jas.         Okotoks         *301         Mar. 17, 1905           Lacey, Wm. R         Calgary         *182         Oct. 10, 1902           Lamb, Herb. David         Frank         41         Aug. 11, 1906           LeBreton, John         *308         Apr. 14, 1905	T -1	Strathcona								
Johnson, Pontus		Inga	1							
Jacob, Arthur         Royal View         303         June 28, 1912           Kerr, Wm.         Lethbrldge (dup.)         183         Jan. 19, 1910           Kidd, Fredk.         Calgary         *62         June 14, 1900           Kowalczyck, Antoine         St. Paul de Metls         *144         Feb. 16, 1900           Kadlec, J. J.         Wetasklwin         *236         Apr. 18, 1904           Killam, Robt. C.         Red Deer         65         May 20, 1907           Kelth, Edward C.         Lille         226         Dec. 8, 1910           Krammer, Frank         Calgary         293         May 1, 1912           Llvingstone, Jas. C.         Lethbrldge         214         Sept. 12, 1910           Lang, Jas.         Okotoks         *301         Mar. 17, 1905           Lacey, Wm. R         Calgary         *182         Oct. 10, 1902           Lamb, Herb. David         Frank         41         Aug. 11, 1906           LeBreton, Gustav A.         Edmonton         *308         Apr. 14, 1905			235	Apr.	5,	1911				
Kerr, Wm.         Lethbrldge (dup.)         183         Jan.         19, 1910           Kidd, Fredk.         Calgary         *62         June         14, 1900           Kowalczyck, Antoine         St. Paul de Metls         *144         Feb.         16, 1900           Kadlec, J. J.         Wetasklwin         *236         Apr.         18, 1904           Klllam, Robt. C.         Red Deer         65         May         20, 1907           Kelth, Edward C.         Lille         226         Dec.         8, 1910           Krammer, Frank         Calgary         293         May         1, 1912           Llvingstone, Jas. C.         Lethbrldge         214         Sept.         12, 1910           Lang, Jas.         Okotoks         *301         Mar.         17, 1905           Lacey, Wm. R.         Calgary         *182         Oct.         10, 1902           Lamb, Herb. David         Frank         41         Aug.         11, 1906           LeBreton, Gustav A.         Edmonton         *308         Apr.         14, 1905		Bassano	3	June	30,					
Kidd, Fredk.       Calgary       *62       June       14, 1900         Kowalczyck, Antoine       St. Paul de Metls       *144       Feb.       16, 1900         Kadlec, J. J.       Wetasklwin       *236       Apr.       18, 1904         Killam, Robt. C.       Red Deer       65       May       20, 1907         Kelth, Edward C.       Lille       226       Dec.       8, 1910         Krammer, Frank       Calgary       293       May       1, 1912         Llvlngstone, Jas. C.       Lethbrldge       214       Sept.       12, 1910         Lang, Jas.       Okotoks       *301       Mar.       17, 1905         Lacey, Wm. R       Calgary       *182       Oct.       10, 1902         Lamb, Herb. David       Frank       41       Aug.       11, 1906         LeBreton, Gustav A.       Edmonton       *308       Apr.       14, 1905		Royal View	303	June	28,	1912				
Calgary   *62   June   14, 1900	Kerr, Wm.	Lethbridge (dup.)	183	Jan.	19,	1910				
Kadlec, J. J.       Wetasklwin       *236       Apr. 18, 1904         Klllam, Robt. C.       Red Deer       65       May 20, 1907         Kelth, Edward C.       Lille       226       Dec. 8, 1910         Krammer, Frank       Calgary       293       May 1, 1912         Llvingstone, Jas. C.       Lethbridge       214       Sept. 12, 1910         Lang, Jas.       Okotoks       *301       Mar. 17, 1905         Lacey, Wm. R.       Calgary       *182       Oct. 10, 1902         Lamb, Herb. David       Frank       41       Aug. 11, 1906         LeBreton, Gustav A.       Edmonton       *308       Apr. 14, 1905	Kidd, Fredk.	Calgary		June	14,	1900				
Kalth, Edward C.       Red Deer       65       May       20, 1907         Kelth, Edward C.       Lille       226       Dec.       8, 1910         Krammer, Frank       Calgary       293       May       1, 1912         Llvingstone, Jas. C.       Lethbridge       214       Sept.       12, 1910         Lang, Jas.       Okotoks       *301       Mar.       17, 1905         Lacey, Wm. R.       Calgary       *182       Oct.       10, 1902         Lamb, Herb. David       Frank       41       Aug.       11, 1906         LeBreton, Gustav A.       Edmonton       *308       Apr.       14, 1905	Kadlec J. J	St. Paul de Metls								
Calgary   Calg	Killam, Robt. C	wetaskiwin			- '					
Krammer, Frank       Calgary       293       May       1, 1912         Llvlngstone, Jas. C.       Lethbrldge       214       Sept. 12, 1910         Lang, Jas.       Okotoks       *301       Mar. 17, 1905         Lacey, Wm. R       Calgary       *182       Oct. 10, 1902         Lamb, Herb. Davld       Frank       41       Aug. 11, 1906         LeBreton, Gustav A.       Edmonton       *308       Apr. 14, 1905	Kelth, Edward C.	Tilla		-						
Livingstone, Jas. C. Lethbridge 214 Sept. 12, 1910 Lang, Jas. Okotoks 4301 Mar. 17, 1905 Lacey, Wm. R. Calgary 4182 Oct. 10, 1902 Lamb, Herb. David Frank 41 Aug. 11, 1906 LeBreton, Gustav A. Edmonton 4308 Apr. 14, 1905	Krammer, Frank	Calgary	:							
Lacey, Wm. R			i							
Lacey, Wm. R       Calgary       *182       Oct. 10, 1902         Lamb, Herb. Davld       Frank       41       Aug. 11, 1906         LeBreton, Gustav A.       Edmonton       *308       Apr. 14, 1905         Long, John       *308       Apr. 14, 1905	Lang, Jas	Okotoks	1.							
Lamb, Herb. David       Frank       41       Aug. 11, 1906         LeBreton, Gustav A.       Edmonton       *308       Apr. 14, 1905         Long, John       *308       Apr. 14, 1905	Lacey, Wm. R	Calgary								
Lengt John Edmonton *308 Apr. 14, 1905	Lamb, Herb. Davld	Frank								
Liong, John	Lebreton, Gustav A	Edmonton		_						
	Long, John	Okotoks		Oct.	11,	1906				

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

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Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.		OF E	
			Ī		
Second Class—Continued					
Laut, John R		153	Apr.	6,	1909
LaVoi, Frank P		111	Mar	23,	1908
Lavelle, Patrick		149	Oct.	30,	1908
Lewis, John H.		166	Sept.	15,	1909
Langstroth, Alf		240 244	Мау Мау	5,	1911
Lord, Victor H		255	Oct.	26, 24,	1911 1911
Libby, Malcolm M.		271	Dec.	15.	1911
Laundy, Harry		325	Nov.	6,	1912
		1		-,	
Moran, Austin	Lethbridge	*36	Mar.	23,	1900
Marshall, Fred, Jos		*203	Aug.	14,	1902
Morrison, John C		*214	Sept.	24,	1903
Mortimer, Samuel M		*241	May	26,	1904
Murray, Robinson	Calgary	104	Jan.	20,	<b>190</b> 8
Merres, Horace	Red Deer	1	Oct.	22,	1907
Mjolness, John A	Medicine Hat	16	Apr.	11,	1906
Mauland, Jack	Bankhead		Dec.	5,	1907
Morrison, Kenneth	Coleman	20	Apr.	19,	1906
Mair, Robt. B	Strathcona	1	Aug. Aug.	8, 7,	1906 1906
Moore, Wm. A	High River		Aug.	13,	1908
Mueller, Karl F.	Lethbridge		Oct.	6,	1908
McKay, Daniel	Lethbridge		June	30,	1899
McGee, Thos.	White Fish Lake (dup.)		Mar.	28,	1908
McConnell, Wm. J	Lethbridge	,	Oct.	8,	1903
McIntyre, John	Calgary (dup.)	48	Aug.	16,	1906
McKim, Nelson	Edmonton		Mar.	26,	1906
McClafin, W. G	Ponoka		Apr.	18,	1904
McCardia, Samuel	Edmonton		June	14,	1907
McLean, Fredk. A	Edmonton	- 1	Mar.	31,	1905
McNellly, S	Okotoks Frank	1.	Mar. Mar.	23,	1908
McDonald, E. R	Frank Edmonton	- 3	Apr.	28, 22,	1906 1908
MacDonald, Alex.	Edmonton		Apr.	22,	1908
McDonald, John D	Hillcrest	. !	Apr.	18,	1907
McNell, Nell S	Calgary	- 1	Мау	23,	1909
McKlnnon, Alex. J	Lille	82	June	20,	1907
McIntyre, Jos	Taber	84	July	8,	1907
McGregor, John	Hillcrest		Sept.	26,	1907
McNichol, John	Exshaw		Jan.	3,	1908
McFayden, John C.	Edmonton		Apr.	22,	1908
McIndoe, Wm	Calgary	1.	Aug.	6,	1908
	Lille	1	Oct. Nov.	5,	1909
McIvor, Wm. K.	Edmonton		Apr.	13, 13,	1909 1910
McAffer, Ronald	Medicine Hat		Sept.	24,	1910
	Edmonton	_	Nov.	30,	1911
McKenzie, Norman	Calgary	242	May	20,	1911
McKenzie, Harvey K	Lethbridge		Dec.	19,	1911
McLeod, Herdman	Coleman		Tune	28,	1912
McDonald, John A	Calgary		Nov.	13,	1912
McAulay, Gus Wallace	Coleman		Nov.	13,	1912
Munro, Claud	Lethbridge		sept.	17,	1912
Morton, Wm. Johnston	Edmonton	308 J	fune	28,	1912
Nimmons, Robt.	Lethbridge	*38	đar.	23,	1900
Nicholson, Robt. John	Edmonton		Mar.	20,	1907
Nuttall, Reginald	Edmonton		prll	25,	1912
*Indicaton Continues.					

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.		ATE ISSU	
Second Class-Continued					
Oxley, John	Taber	6	Sept.	18,	1905
Olson, Harold, P. T	Calgary	276	Dec.	28,	1911
O'Neil, Edward T		319	Sept.	20,	1912
Parcels, Tlmothy E	Red Deer	6	Sept.	4,	1899
Payzant, Ernest M	Edmonton	*12	Oct.	9,	1899
Pratt, Geo	Edmonton	*16	Oct.	9,	1899
Pearce, Abra	Edmonton	*52	May	28,	1904
Pugh, John	Calgary	28	April	30,	1906
Powers, Thos. E	Strathcona	*246	Мау	26,	1904
Potter, Martln	Evarts	51	Oct.	5,	1906
Punnett, Lewis, L	Chesterwold	50	Oct.	4,	1906
Pallot, Herbert J	Edmonton		Sept.	23,	1908
Payzont, H. C	Edmonton	121	Apr.	22,	1908
Price, John	Edmonton	· ·	Dec.	19,	1906
Patterson, John M	Okotoks		Mar.	23,	1908
Prince, John E	Calgary		June	4,	1907
Purvls, John	Calgary	)	Feb.	15,	1908
Poole, Fred P	Strathcona		July	٩,	1908
Pollock, Daniel R	Calgary		Dec.	2,	1908
Pearson, Augustus	Bellevue		Sept.	7,	1910
Potter, John	Calgary		Mar.	7,	1910
Pitts, Wm. S	Edmonton	1	Jan.	10,	1910
	Edmonton		Apr.	6,	1910
	Lethbridge	1	Oct.	20.	1910
Petrie, Robt. F	Elcan	- 1	Sept.	16,	1910
Patterson, Samuel F	Granum	1	Oct.	18,	1911
Pollitt, Nicholas T	Taber	1	July	13,	1911
	Edmonton		Aug.	24,	1911
Pollock, Frederick	Edmonton		Sept.	9,	1911
		/	Nov.	28,	1911
	Edmonton		Vov.	29,	1911
	Royal City		Apr. Sept.	4, 17,	$1912 \\ 1912$
	Lethbridge	•5 J	Γ <b>-</b>	90	1000
	Canmore		ſune Feb∙	30,	1899
	Banff			13,	1900
Roberts, Wm. B.	Fort Saskatchewan		Sept.	29,	1900
	Calgary		May	18,	1904
	Calgary	1 -	Sept. Tune	22,	1908 1907
	Lethbridge		Apr.	3, 8,	1998
	Calgary		Sept.	22,	1908
Rice, Robt	Calgary		Oct.	11,	1913
Richardson, Thos	Calgary	, ,	Sept.	23,	1910
Ray, Arthur R	Edmonton		May	11,	1910
Rennle, Thomas	Millet		Dec.	8,	1911
Ross, Dexter A	Strathcona		une	28,	1912
Ryan, Harry	Frank		Aug.	12.	1912
	Calgary		fay	22,	1912
Schatz, Wm. H	Strathcona	*17 10	Oct.	19,	1000
Shaw, M. W. S	Mldnapore		Dec.	18,	1899
Stafford, Geo	Lethbridge		lug.	20,	1899
Steven, Hutton	Calgary		.ug. .pr.	20, 17,	1909 1900
Stagg, Geo	Calgary		`eb₊		
Steven, Alfred E	Calgary		eb.	7, 7	1901
Shelley, Henry Jas	Calgary	1 -	eo. Iar.	7,	1901
Sloan, Wm	Lethbridge		aar. uly	12,	1901
Slemens, Peter	Anthracita		uiy Iay	-	1902
Stewart, John A	Red Deer				1906
*Indicates Certificate "		ال إنكاد	an.	2,	1906

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	1	TE SSU	
Second Class—Continued					
	Colon	*223	Nov.	e	1903
Shannon, Jas	Kamloops	*224	Nov.	6, 14,	1903
Starkey, Geo. J	Ponoka	9	Nov.	2,	1905
Stokes, Robt. D	Strathcona	19	Apr.	11,	1906
Stacey, Fredk. H	Edmonton	1	Sept.	18,	1905
Shore, John P	Edmonton	3	Sept.	18,	1905
Slingsby, Sldney	Calgary	74	June	3,	1907
Stanley, Chas. H	Bankhead	32	May	14,	1906
Sefton, Fredk	Lethbridge	39	Aug.	10,	1906
Stanley, Benj. F	Calgary	47	Aug.	14,	1906
Syer, Thos. M	Red Deer	94	Oct.	22,	1907
Stockdale, Thos. D	Lethbridge	133	July	31,	1908
Simpson, Wm.	Coleman	167	Sept.	18,	1909
Sparber, Chas. H	Lethbridge		Nov.	24,	1909
Searle, Wm	Coal City		Dec.	4,	1909
Simondson, Hy	Northern	197 215	Apr.	13,	1910
Smith, Fredk	Coleman	192	Sept. Apr.	12,	1910 1910
Steven, John C. S	Edmonton		June	6, 22,	1910
Smith, Wm. J.	Mllk River	1	Nov.	17,	1910
Scott, David S	Coleman	,	Oct.	24,	1911
Simpson, John T.	Coleman	· · · · · · · · · · · · · · · · · · ·	Sept.	8,	1911
Sinclair, Walter W. P	Medicine Hat	1	Apr.	12,	1911
Saunders, Michael J	Cardiff	1	Dec.	12,	1911
Seymour, Francis E	Macleod	257	Oct.	24,	1911
Stobbs, John	Lethbridge	251	Sept.	9,	1911
Sowerby, William N	Taber		Oct.	24,	1911
Stephenson, Jno. Leach	Lethbridge		Apr.	24,	1911
Stephenson, Harry	Medicine Hat	4	June	20,	1911
Singer, Wm. George	Edmonton	1	Dec.	12,	1911
Stirling, James	Michel		Mar.	18,	1912
Spargo, John	Edmonton		Jan.	12,	1912
Stratton Claude	Edmonton		July	22,	1912
Shaw, I homas	Editoritor	200	Мау,	14,	1912
Tabacchi, Stephen	Lethbridge	186	Mar.	15,	1910
Toreson, Thos	Wetaskiwin		Mar.	7,	1900
Thompkins, Peter	White Fish Lake		Nov.	27,	1900
Tasker, Henry A	Nanton		Oct.	15,	1908
Taddrew, Henry P	Edmonton	1	Мау	10,	1906
Turner, Duncan	Edmonton		Nov.	26,	1907
Thorley, James	Taber	1	Dec.	26,	1907
Turner, Stephen F Terry, Frank A	Taber Strathcona		Dec.	26,	1907
Taylor, Percy E.	Taber		Dec. Oct.	29,	1909
Thompson, James	Innisfail	1	Aug.	6, 24,	1908 1909
Turner, Jas. Abbot	Taber		June	28,	1912
Thomas, David Rees	Lethbridge		Nov.	13,	1912
Taylor, Glibert	Edmonton		Feb.	8,	1912
Von Wendel, Carl	Calgary		Nov.	6,	1903
Van Haast, Julius H Voss, Edwin E	Strathcona		Nov.	5,	1904
Vincent, Robt. G.	Fort Saskatchewan		May May	7, 26.	1908 190 <b>9</b>
Varden, Anthony L.	Edmonton		may July	26, 5,	190 <b>9</b>
Von Keekem, Barend J.	Medicine Hat	1	Apr.	12,	1911
Vaughan, Wm. Lyle	Calgary		May	20,	1911
Varlow, Hy. John	Edmonton	1	Dec.	12,	1911
Walker, J. B	Lethbridge		June	30,	1899
Watson, Ernest P	Strathcona	-19	Oct.	9,	1899

\*Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	1	TE OF		
Second Class-Continued						
White, Jas	Canmore	*73	Sept.	5,	1906	
Websdale, Francis	Edmonton	*139	June	21,	1901	
Waldock, John G	Medicine Hat	*170	Aug.	18,	1902	
Waddell, O. S	Edmonton	*245	May	26,	1904	
Wright, Geo. W	Calgary	73	June	3,	1907	
Wilcox, Jas. E	Coleman	125	Apr.	22,	1908	
Walburton, John	Spring Point	8	Sept.	18,	1905	
Williams, John	Edmonton	23	Apr.	30,	1906	
Wilson, R. J	Hlgh River	80	June	19,	1907 1908	
Webb, Jas. F	Exshaw	143 46	Sept.	22, 14,	1906	
Walker, Thos	Coleman	142	Sept.	22,	1908	
Wilkinson, Robt	Calgary	205	July	16,	1910	
Walker, Rolf A	Edmonton Lethbrldge	227	Dec.	8,	1910	
Warr, Percy J. H	Strathcona	202	June	1,	1910	
Winter, Archibald	Edmonton	233	Mar.	31,	1911	
Walton, John W	Edmonton	269	Dec.	12,	1911	
Willis, Robert I	Edmonton	330	Dec.	13,	1912	
Wood, Jas	Bellevue	279	Jan.	16,	1912	
Will, Frank Silver	Edmonton	284	Mar.	14,	1912	
Williams, Richard	Medicine Hat	289	Apr.	6,	1912	
White, William	Lethbridge	305	June	28,	1912	
Weir, John	Edmonton	307	June	28,	1912	
Young, Geo	Lille	43	Aug.	11,	1906	
Zurlinder, John	Calgary	138	  Sept	14,	1908	
Third Class			 			
Albertson Andrew O	Charakter on a	4105	Tuno	25	1901	
Albertson, Andrew O Alkman, Geo	Strathcona	*135 *274	June	25, 11,	1902	
Allan, Albert	Calgary Edmonton	*360	Sept.	3,	1903	
Allan, Arthur	Edmonton	*526	Apr.	18,	1904	
Ashcroft, Joseph	Lethbridge	*€73	Nov.	24,	1904	
Akey, Chas. S	Iowalta	<b>*759</b>	Mar.	24.	1905	
Archibald, Chester H	Wetasklwln	*786	Mar.	27,	1905	
Ambler, Davld	Wetasklwin	*790	Mar.	27,	1905	
Anderson, Andrew Wm	Wetasklwin	*794	Mar.	27,	1905	
Adair, James E	Edmonton	263	Apr.	18,	1907	
Agar, Chas	Edmonton	143	May	29,	1906	
Adshead, Herb. B	Olds	149	May	31,	1906	
Anderson, John J.	-	192	Aug.	13,	1906	
Alexander, J. A.		203	Aug.	13,	1906	
Abraham, W. R.	Lacombe	242	Sept.	28,	1906	
Adams, David C	Edmonton	207	Sept	8,	1906	
Anderson, G. A.	Edmonton	266	Apr.	30,	1907 1907	
Anderson, Jas. J.	George 13	318	May	29,		
Anstett, Frank A.	Crossileid	324	May	29,	1907	
Andrews, W. H.	Stewartwyn	337 364	June	4,	1907 1907	
Adams, Chas. W.	Lacombe	367	June	7, 7,	1907	
Antrobus, Wm	Edmonton	386	June	14,	1907	
Anderson, Henry	Rosenroll	393	June	14,	1907	
Anderson, Wm	Killam	399	June	14,	1907	
Anderson, Ed. A	Heatherbrae	402	June	14,	1907	
Ambier, Geo. D	Wetasklwin	411	June	14,	1907	
Allan, Harrold	Calgary	563	Jan.	30,	1908	
Amdhal, Theo. J	Seven Persons	2172	Apr.	23,	1912	
Archibald, Syl. C	Ferry Bank	691	May	5,	1908	
Alveberry, Fred S	Wetasklwin	699	May	7,	1908	

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	NAME ADDRESS				OF E
Third Class—Continued					
Atterbury, Chas. J	Edmonton	733	Sept.	18,	1908
Asper, A	Merna	782	Sept	18,	1908
Ashcroft, John	Lethbridge	844	Oct.	6,	1908
Anderson, Altken, McK	Calgary	811	Mar.	19,	1909
Adring, Tom	Lethbridge	898	Mar,	24,	1909
Atkins, Ralph P	New Dayton	899	Mar.	24,	1908
Aveldson, August	Sunny Slope	906 965	Mar.	26, 16,	1909 1909
Annable, Bolton A Anderson, Edward	Claresholm	988	Apr. Apr.	20,	1909
Aldridge, Ollver	Cardston	1005	Apr.	25,	1909
Arrison, Orrln S	Gleichen	1017	Apr.	28,	1909
Anderson, Orlle H	Sterling	1109	Sept.	15,	1908
Adams, Danlel P	Lacombe	1173	Oct	13,	1909
Ashburner, Edward	Lethbridge	1214	Mar.	15,	1910
Alspach, Wm. L	Stavely	1273	Mar.	29,	1910
	Granum	1280	Mar.	30,	1910
Anderson, John H	Round Hlll	1283	Apr.	1,	1910
Atkins, C. C. L	New Dayton	1356	Apr.	14,	1910
Anderson, Geo. H	Barnwell		Apr.	15,	1910
Aaring, Ben	Burdett		Apr.	19,	1910
Allen, Ewart G	Medicine Hat	2173	Apr.	23,	1912
Ansley, Harvey, R. B	Medicine Hat	1390	Apr.	25,	1910
Allen, Richard	Lethbridge	1421	June	11,	1910
Aitken, Jas	Lethbridge	2055	Mar.	13,	1912
Allan, Robt.	Calgary	1519 2174	Sept.	23, 23,	1910
Alger, Geo. V	Medicine Hat Eagle Hill		Apr. Oct	20, 1,	1912 1910
Ameson, Sigurd A Atkinson, Wm. E	Claresholm	1641	Mar.	15,	1911
Atkinson, Louis E	Claresholm	1642	Mar.	16,	1911
Arbuster, John	Stony Plaln		Mar.	31,	1911
Aitcheson, Geo	Green Lawn		Mar.	30,	1911
Ainsley, Wm. G	Bashaw	1712	Apr.	5,	1911
Anderberg, Claus E	Bassano	1849	June	13,	1911
Anderson, Victor	Granum	1874	July	13,	1911
Allen, Richard	New Dayton	1974	Oct.	24,	1911
			Nov.	13,	1912
Atkinson, Thos	Little Volga		Nov.	10,	1911
Arm, William F	Lethbridge		Feb.	14,	1912
Anderson, Carl	Taber		Mar.	13,	1912
Albert, Max	Berseker	2123	Apr.	4,	1912
Audland, Andrew	Carlstadt		Apr.	4,	1912
Archamblo, Fred	Rosemead		April May.	19, 2,	1912
Allender, Loren L	Edmonton		July	2, 16,	1912 1912
Armstrong, Alex.	Red Deer		Oct.	16,	1912
Blatchford, Peter	Edmonton		Nov.		
Bawtlnheimer, H. E	Red Deer		Dec.	28, 18,	1899 1901
Billo, Jos	Edmonton	1	Dec.	18,	1901
Bernier, Alexis	Lamoureux		Dec.	18,	1901
Berlinguette, Alfred			Aug.	18,	1902
Burwell, Arthur P			Apr.	24,	1903
Berg, John			Мау	13,	1903
Bolduc, Jos.		1	Мау	13,	1903
Bowers, Richard J			Мау	13,	190
Briggs, M. R.			Мау	13,	190
Bricker, Menno C			Nov.	6,	1903
Brown, Robert S			Jan.	15,	1904
Burbank, Lyle A	Calgary	*483	Feb.	10,	1904
Billow, Adolph			Mar.	14, 18,	1904
	Edmonton	*527	Apr.		1904

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF	1	TE (	
		CERT.	1 4	<u> </u>	
Third Class-Continued					
Brenton, J. R			Apr.	18,	1904
Bolduc, Peter		*638	Oct.	15,	1904
Bevington, Geo. E	Strathcona		Oct.	15,	1904
Browne, Thos. J	Innisfail	*83 *757	Apr. Mar.	9, 24,	1906 1905
Bruce, Chas. R.	Lacombe	*761	Mar.	24,	1905
Blewett, Wm. G	Mewassin	*818	Apr.	14,	1905
Bauclin, Theophile	Legai	*214	Aug.	14,	1906
Brunelle, John		*821	Apr.	14,	1906
Brodie, Wm. A		*848	Мау	30,	1905
Blanchette, Peter			Dec.	28,	1906
Bradbeer, Edwd			Sept.	16,	1905 1 <b>90</b> 5
Baker, Chas. L			Sept. Sept.	16, 16,	1905
Blttner, Anton			Nov.	11,	1905
Beli, Harry			Mar.	16,	1906
Baker, Thos	Caigary	72	Mar.	19,	1906
Boote, Edwd		107	Apr.	24,	1906
Bodman, John A		885	Mar.	18,	1909
Bartiett, Percy R		142	May	29,	1906
Burns, David		170 196	Aug.	11,	1906 1906
Benz, August J			Aug. Sept.	13, 13,	1906
Bates, Minor		!	July	19,	1912
Brown, A. J			Sept.	21,	1906
Bucher, L. W		273	May	15,	1907
Berg, John P		280	May	15,	1907
Barr, Ralph		1	May	15,	1907
Beggs, John			May	20,	1907
Bugton, Ole G.		302 304	May May	23, 23,	1907 1907
Bergen, Jacob			Мау	29,	1907
Bush, Frank C		1	May	29,	1907
Barker, Wm. L			June	4,	1907
Brotherston, Robt. A		345	June	4,	1907
Barnes, Wm. J.			June	4,	1907
Brown, Wilfred B			June	4,	1907
Bush, Henry Brereton, Thos. A	Biackfaids		June	7,	1907
Brown, Wm. H	Edmonton		June June	7, 14,	1907 1907
Berry, Robt. G	Fort Saskatchewan		June	14,	1907
Bradbury, Arthur T	Edberg		June	14,	1907
Batke, Albert L	Ferry Point	1	June	14,	1907
Bucker, Waiter L	Mossieigh	424	June	19,	1907
Brower, Archd. B		928	Apr.	1,	1909
Black, Robt	1	479	Juiy	24,	1907
Bowman, Albert		481	July	27,	1907 1907
Brickman, Jos. T.	Pembina	485	Aug.	28, 15	
Bell, Wm. G	Red Deer	495 515	Oct.	15, 22,	1907
Bergen, Henry	Dldsbury	527	Oct.	24,	1907
Burchnall, Frank N	Bluff Centre	1	Oct.	28,	1907
Bawslaugh, John J	Calgary		Jan.	20,	1908
Burwell, Wm	Gladys	569	Mar.	23,	1908
Blair, Geo. R.	Claresholm	570	Mar.	23,	1908
Base, John L	Keld Hill	1 3	Mar.	23,	1908
Bell, Wm. F	High River	1 :	Mar.	23,	1908
Blackorby, W. G	Claresholm	<b>1</b>	Mar.	23,	1908
Bowerman, Cliff	Tathbuldes	599	Apr.	8,	1908
	was granted by North T		Apr.	9,	1908

\*Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE O		
Third Class—Continued					·
Bryant, Percy B	Lethbridge	627	Apr.	9,	1908
Brown, John		/	Apr.	14,	1908
Beckett, Waitland J			Apr.	14,	1908
Brubaker, Albert J	Medicine Hat	1376	Apr.	18,	1910
Burke, Benj. S	Lacombe	693	Мау	6,	1908
Bader, Benj. H		?	May	14,	1908
Bateman, Ewart W	Lethbridge		Aug.	6,	1908
	Red Deer		Sept.	8,	1908
Blacklock, Robt. O		1	Sept. Sept.	8, 8,	1908 1908
Butts, John H	Olds		Sept.	11,	1908
Ball, Arthur	Mavvilie		Sept.	14,	1908
Burns, Wm.			Sept.	14,	1908
Bowick, Chas. C	Tofieid	1	Sept.	28,	1908
Bowick, John D		811	Sept.	28,	1908
Brown, John	Kitscoty	812	Sept.	28,	1908
Brainard, Jerome W		824	Oct.	2,	1908
Bowler, Thos. H	Macieod		Oct.	6,	1908
Benjamin, Albert			Oct.	20,	1908
Bucknam, Artiff V			Nov.	23,	1908
Brenton, Chas. J		1	Dec.	2 <b>3</b> ,	1908
	Red Deer	- ,	Dec.	18,	1901 1905
Boomer, Alonzo			Nov. Mar.	22, 13,	1909
Barley, Chas.			Mar. Mar.	20,	1909
Bratz, Emil			Mar.	11,	1911
Bessey, Alfred			Apr.	13,	1909
Bell, David J			Apr.	16,	1909
Bailey, Geo	Magrath		Apr.	22,	1909
Burton, Edar W		1004	Apr.	23,	1909
Bell, Andrew J		. 1	Apr.	28,	1909
Brantz, Aibert A			Apr.	28,	1909
Baumbach, John		1	Мау	1,	1909
Bishop, Frank E			May	1,	1909
Brown, Geo. C.			May May	21, 26,	1909 1909
Bakken, Nels O		1.	May	28,	1909
Benson, Roy		2	June	8,	1909
Buchanan, Wm. E			Aug.	24,	1911
Baker, Bernard S	Nanton		Sept.	21,	1909
Burr, John C		1116	Sept.	21,	1909
Betton, Thos. W		1140	Sept.	21,	1909
Boyle, Jas. E		1	Mar.	29,	1911
Bercyz, Julius			Oct.	24,	1911
Benson, Geo		3	Sept.	28,	1909
Black, Andrew			Sept. Oct.	29,	1909 1909
Bradley, Harold R.			Nov.	9, 5	1909
Barley, Jack E.	}		Nov. Nov.	5, 16,	1909
Burness, Hy.			Jan.	10,	1910
Bouyea, Arthur			Feb.	3,	1910
Berwick, Albert E			Mar.	4,	1910
Beamer, Frank A	Calgary	1	Mar.	7,	1910
Bishop, Harvey M		1204	Mar.	7,	1910
Blackstock, John		1204	Mar.	7,	1910
Bonnieman, Wm			Mar.	15,	1910
Buchring, Wm			Mar.	15,	1910
Barbin, M. J.	1		Mar.	15,	1910
Baker, Thos. R			Mar.	15,	1910
Beatty, Ed. S.	Lethbridge		Mar.	15,	1910

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.			
Third Class—Continued					
Bryant, Arthur	Lethbridge	1220	Mar.	15,	1910
	Frank		Mar.	18,	1912
Baird, Sam		1625	Mar.	11,	1911
Bochnlein, Galuss J	Macleod	1636	Mar.	15,	1911
Buck, Herbt. W		1302	Apr.	6,	1910
Buckler, Eric W			Apr.	8, -	
Buck, Alphalus B			Apr.	8,	1910
Brown, Archie B			Apr.	11,	1910
Bowman, Elra			Apr.	1,	1910
Bonallo, Herbert D	1		Apr.	21,	
Bonallo, Keir			Apr.	21,	1910 1910
Byron, J. Hercule			Apr. May	25,	
Barr, John			May June	13, · 2,	1910
Bent, Wm. K.			July	14,	1910
Brown, deWitt E			Aug.	15,	1910
Bryce, Wm		,	Sept.	6,	1910
Bree, Ernest N			Sept.	13,	1910
Burton, Francais J	Edgerton		Sept.	16,	1910
Bratvold, Oscar	Dina	1493	Sept.	16,	1910
Barstad, Sanders E	Lee Creek	1494	Sept.	16,	1910
Brattell, Jas. E	Calgary	1520	Sept.	23,	1910
Brown, Geo. J	Granum	1539	Oct.	3,	191 <b>0</b>
Brubaker, Jonas	Mayton	1551	Oct.	17,	1910
Barrett, Alfred			Oct.	17,	1910
Burton, Fredk. H			Oct.	19,	1910
Brown, Fredk. H			Oct.	20,	1910
Brown, Robt.	Lundbreck		Oct.	20,	1910
Bradley, Harold	Bassano		Nov.	14,	1910
byers, Enner L	New Dayton		June	20,	1912 1910
Bailey, Evans	Coleman		Nov.	17. 24,	1911
balley, Evally	Coleman		Apr. Nov.	17,	1910
Bridge, Ray C	Calgary		Dec.	8,	1910
Borrows, Wm	Lethbridge		Мау	1,	1912
Bond, Newton	Mannville	,	Dec.	10,	1910
Bowerman, Cliff	Cowley	.,	Mar.	15,	1911
Brouse, Jason W	Calgary	1608	June	23,	1911
Bergman, Jos. A	Lethbridge	1610	Mar.	7,	1911
Bennett, Fred C	Hillcrest	2072	Mar.	18,	1912
Brubaker, Isaac	Airdrie	1646	Mar.	20,	1911
Brown, Jno. E	Calgary		Mar.	20,	1911
Bye, Martin	Lillico	.!	Mar.	24,	1911
Bullman, Jno. E	Warner		Mar.	29,	1911
Berrigan, Steve	Bassano		Apr.	19,	1911
Brougham, Wm. J	Doggovith		Apr.	19,	1911
Broahen, Wm. H	Modicine II.		Apr.	5,	1911
Ballew, Geo. L.	Medicine Hat	a i	Apr.	7,	1911 $1911$
Baumbach, Jacob I	rvine		Apr.	15,	1911
Burnett, Elmer	Taher		Apr. Apr.	15, 24,	1911
Braumberger, Fred C	Berseker		May	6,	1911
Barnes, Jos	Bassano		мау Мау	20,	1911
Beil, John F.	Lethbridge		мау Мау	26,	1911
Berg, Cari M	Calgary		June -	13,	1911
Bradshaw, R. Davis	Edmonton	1	June	21,	1911
Bennett, Wm. D	Strathmore		July	15,	1911
Bowler, Herbert A	Edmonton		Aug.	16,	1911
Branning, L. E	Bow Island		Aug.	24,	1911
WIIMAR Dakt TIT	LT olm mlan		Sept.	27,	1911

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	Į.	ATE ISSU	
Third Class-Continued					
Bartman, Geo. V	Castor	1927	Sept.	7,	1911
Butters, Hy. G		1931	Sept.	7,	1911
Bowen, Robt	Strathcona	1953	Sept.	9,	1911
Baiers, Peter		1963	Oct.	18,	1911
Boler, Thos. A	Keoma	1967	Oct.	20,	1911
Blades, Geo	Stirlingville	1968	Oct.	20,	1911
Braithwaite, Harry	Lethbridge	1975	Oct.	24,	1911
Blake, Jas. H		,	Dec.	2,	1911
Brennan, Fred		1	Dec.	12,	1911
Brown, William			Mar.	18,	1912
Briggs, Myron W	1 -		Mar	22,	1912
	1		Mar.	25,	1912
Bruce, Geo. B	Cardiff		Mar.	25,	1912
Barnum, Louis O	Acme	_ I	Mar.	28,	1912
Baker, Elmer			Apl.	16,	1912
Benson, Elmer A			Apl.	16,	1912
Biand, Harry O	Capita Tolks		Apl. Apl.	19, 20.	1912 1912
Bonnieman, John	Coron Dargons	1	Apl.	23,	1912
Bissett, Robert B			Apl.	24,	1912
Bissell, Chas. M		!	Apl.	24,	1912
Beers, John		1	Apl.	26,	1912
Bibby, Reginald	Pine Creek		Apl.	29,	1912
Baird, Peter A		_ 1	Oct.	23,	1912
Burgess, Geo. G			Мау	3,	1912
Birnel, Ernest E	Sunnyslope	2251	Мау	3,	1912
Burnette, Fred N	Calgary	2271	Мау	22,	1912
Boulet, John	Calgary	2272	Мау	22,	1912
Brennan, Cornelius			Мау	22,	1912
Bush, John Thomas			June	17,	1912
Bird, Jos. Samuel		(	July	12,	1912
Bronsema, Emanuel		1	July	16,	1912
Buttress, Clement		1.	July	16,	1912
Bristo, Wm. Geo			July	18,	1912
Brown, James			Sept. Oct.	19, 19,	1912 1912
Bradshaw, Alfred		1	Oct.	19,	1912
Bailey, Peter			Dec.	13,	1912
Baynton, Edward		. 1	Dec.	13,	1912
, =				-0,	
Currie, L.	Strathcona	*23	Oct.	9,	1899
Cameron, John	Edmonton	_ 1	Oct.	9,	1899
Carscadden, F. W	Strathcona	1	Mar.	7,	1900
Clink, Geo. J	Lacombe	*115 I	Dec.	31,	1900
Campbell, Michel	Canmore	*141  N	<b>I</b> ay		1906
Cruickshank, Chas	Red Deer	*186	ec.	18,	1901
Clauson, John	Red Deer		lpr.	23,	1902
Currle, Wm	Medicine Hat		lug,	18,	<b>1902</b>
Currie, Arch'd	Medicine Hat		lug.	23,	1903
Calhoun, Culver	Calgary		Mar.	14,	1904
Curtis, W. W	Carstairs		ec.	20,	1904
Coulter, Frank	Edinonton		pr.		1904
Cunningham, J. E	Edmonton		pr.		1904
Charlette, Clifford	Peaumont		.pr. Oct		1904
Cote, Jos.	Regiment	ι-	oct.		1904 1904
Crlehton, David O	Lethbridge (dup)	,	ec.		1905
Carpenter, David	Pincher Creek		Dec.		1904
Cummins, Walter J. C (	Calgary		Mar.	16,	1905
Colter, Chas	Medicine Hat		une		1905
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<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.					DATE O		
Third Class-Continued									
Converse, E	Ponoka	<b>5</b> 5 1	Nov.	16,	1905				
Campou, Denis	St. Albert		Mar.	26,	1906				
Clausen, Danlel	Evarts	106	Apr.	24,	1906				
Cartwright, Geo		116	Aprll	30,	1906				
Cooper, Wm. S		126	Apr.	30,	1906				
Cralg, James T.			Мау	29,	1906				
Colwell, Frank L		1	Мау	31,	1906				
Cralg, Mert E	Markerville		May	31,	1906				
Clark, O. S.	Taber		Aug.	11,	1906				
Carcaden, Arthur	Nanton		Oct. Aug.	20, 13,	1909 1906				
Charboneau, Len	Fort Saskatchewan		Sept.	13,	1906				
	Stettler	1	Sept.	20,	1906				
	Edmonton		Sept.	20,	1906				
Coghlll, Aibert	Red Deer	1	Sept.	27,	1906				
Cummlngs, Wm J	Bentley		Sept.	27,	1906				
Curtls, Homer, G	Edmonton	265	Apr.	29,	1907				
Campbell, Jas. H	Edmonton	282	Мау	15,	1907				
Code, Jas. A.	Red Deer	?	Мау	20,	1907				
	Innisfall		Мау	29,	1907				
Collard, Chas. D.	Mundare		Мау	31,	1907				
Cosgrove, Jas. McA	Calgary		June	4,	1907				
Carter, John R	Morningside		June	7,	1907				
Cunnlngham, Orvill D.	Stettler	1	June	7,	1907				
	Vegreville	. 4.	June June	14,	1907 1907				
Campbell, Benj. F	Edmonton		June	14, 14,	1907				
Clark, Herbert	Strathcona		June	14,	1907				
Coates, Robt. A.	Cochrane		June	29,	1907				
Caplin, Fred C	Huntsville		Tuly	15,	1907				
Charters, Ed. J.	Claresholm		July	15,	1907				
Clemens, Pater F.	Stettler	531	Oct.	28,	1907				
Crego, W. E.	Lacombe	537	Oct.	28,	1907				
Cook, Wm. D.	Lamerton	(	reb.	27,	1908				
Culp, Geo. W.	Spring Coulee		Apr.	9,	1908				
	Medicine Hat	1	Apr.	27,	1908				
	Vermillon	_ /-	Apr.	27,	1908				
	Lloydminster		May	18,	1908				
	Cardlff Edmonton		Sept.	18,	1908				
Coburn, Alex. F.	Daugh	_ [	Sept. Sept.	18, 21,	1908 1908				
Cotterall, John	Calgary		Sept.	22,	1908				
Clark, Tom	Cochrane		Sept.	22,	1908				
Carrow, Jos. B.	Calgary	1.	Sept.	22,	1908				
Cull, Cecil	Vegreville	1	Sept.	28,	1908				
Charlenger, Air. E.	Edgerton		Sept.	28,	1903				
Courtlight, Leo.	Maughan	815	ept.	28,	1908				
Carriere, Arthur	High River		Oct.	2,	1908				
Cody, Wm. H. Cousins, Bert.	High River		Oct.	2,	1908				
Cousins, Walter	High River	1	Oct.	2,	1908				
Cameron, Geo. M.	High River	1	Oct.	2,	1908				
Cleave, Geo. M.	Calgary		Oct.	10,	1908				
Collinati, 1000	Frank	/	Oct.	27,	1908				
Curey, Wm.	Bowville		Vov.	5,	1908				
Conibear, Wm. N.	Lethbridge		Aar. Aar.	24, 24,	1909 1909				
Carlson, Carl G.	Dldsbury	-	far.	24, 26,	1909				
Cauton, Jules	Edmonton	!	pr.	20, 3,	1909				
Chester, Thos. W.	Maclaad		pr.	7,	1909				
Christian, Wm. M	Vermillon	980 (A	pr.	20,	1909				
*Indicates Centificate n	ver erented by North Tir			•					

<sup>\*</sup>Indicates Centificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE O		l .		L		I .		
Third Class-Continued											
Cleven, Nels T	Klllam	995	Apr.	23,	1909						
Court, Wm. E	The Gap	1019	Apr.	28,	1909						
Crews, Waldan	Medicine Hat	1048	May	1,	1909						
Cathro, Aylmer G	Lethbridge	1170	Oct.	9,	1909						
Cowell, Robt. J		1062	Oct.	21,	1909						
Chalmers, John		1110	Sept.	18,	1909						
Cartwright, Walter		1111	Sept.	18,	1909						
Cotton, Samuel J		1112	Sept.	18,	1909 1909						
rar, James	Edmonton	1179 1197	Nov. Mar.	16, 3,	1910						
Czarkaski, Antonio	Edmonton	1202	Mar.	5.	1910						
Campbell, John Chas	Taber	1221	Mar.	15,	1910						
Cimoline, Antonio	Lille	1248	Mar.	21.	1910						
Callahan, Jos	Pincher Creek	1258	Mar.	22,	1910						
Cridland, Walter	Summerview	1259	Mar.	22,	1910						
Cook, Marshall S	Plncher Creek	2014	Dec.	19,	1911						
Curtis, Claude C	Macleod	1281	Mar.	30,	1910						
Carroll, Thos. C. P	Vermilion	1303	Apr.	6,	1910						
Clay, Elmer	Paradlse Valley	1304	Apr.	6,	1910						
Cleophas, Leif M	Coaldale	1313	Apr.	7,	1910						
Cady, Lynn	Edmonton	1345	Apr.	13,	1910 1910						
Cheyne, Jas	Edmonton	1405 1442	May July	17, 14,	1910						
Cutlack, Percy	Cowley	1469	Aug.	31,	1910						
Cook, Delmer E.	Innlsfall	1513	Sept.	21,	1910						
Cameron, Jas. D	Bassano	1521	Sept.	23,	1910						
Clennin, Samuel	Bawlf	1541	Oct.	7,	1910						
Crawford, Robt	Barnhill	1564	Oct.	20,	1910						
Campbell, Hugh J	Calgary	1578	Oct.	21,	1910						
Clark, Gordon	Stratheona	1581	Nov.	15,	1910						
Chapman, Thos.	Lethbridge	1612	Mar.	7,	1911						
Chadwlek, Emml	Calgary	1648	Mar.	20,	1911						
Czernlawski, Mike	Vegreville	1664 1671	Mar.	22,	1911 1911						
Campbell; Lewls A	Warner	1686	Mar. Mar.	24, 29.	1911						
Campbell, Benj.	Warner	1687	Mar.	29.	1911						
Coffee, Clinton	Tlde Lake	1732	Apr.	10,	1911						
Coyle, Ed. S.	Nanton	1763	Apr.	19.	1911						
Christlan, Neal	Magrath	1778	Apr.	24,	1911						
Cox, Orville	Kesma	1802	May	6,	1911						
Cleminson, Jer	Calgary	1818	May	20,	1911						
Cleminson, Wm.	Calgary	1819	May	20,	1911						
Caveny, Howard	Stavely		June	20,	1911						
Clock, Alf. L	River Bow	1860	June	20,	1911						
Crinion, Bert	Wetaskiwln	1870 1875	July	6, 19	1911 1911						
Cromer, Walter	Edmonton	1889	July Aug.	13, 16,	1911						
Chatvaire, Jean	Edmonton	1890	Aug.	16,	1911						
Cameron, Frank A.	Calgary	1897	Aug.	22,	1911						
Carney, Wm. C.	Nanton	1969	Oct.	20,	1911						
Caron, Alphonse	Riviere Qu Barre	1985	Oct.	25,	1911						
Cowe, George	Edmonton	1988	Nov.	10,	1911						
Cook, Wm. R.	Taber	1997	Nov.	17,	1911						
Corlett, Wm. Ed.	Edmonton	1768	Apr.	21,	1911						
Corlett, Wm. Ed		2225	Apr.	29,	1912						
Carlson, Gus. A	Battle River	1964	Oct.	18,	1911						
Carlson, Gus. A	Battle River	2287	May	29,	1912 1912						
VILLEGIES VVIII W	Cayley	2025	Jan.	16,	1912						
Clegg, Wm. A.	Coleman	2028	Jan.	16,	1912						

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE ISSU		
Third Class-Continued	,		ĺ		
Coskey, Clarence J	Passley	2057	Mar.	13,	1912
Cofell, Lemmy	Ardenville	2070	Mar.	18,	1912
Crapo, George	Bickerdike	2097	Mar.	25,	1912
Clem, John W	Bragg Creek	2109	Mar.		
Crawford, Dan A	Magrath	2120	Apr.	2,	1912
Collins, Geo. H	Gleichen	2125	Apr.	4,	1912
Carnahan, Reuben J	Bassano	2126	Apr.	4,	1912
Cameron, Wm. T	Sedgewick	2136	Apr.	10,	1912
Conover, Geo. F	Grassy Lake	2176 2203	Apr.	23,	1912
Collins, John	Calgary	2204	Apr. Apr.	26, 25,	1912 $1912$
Court, Ed. Alfred	Exshaw Leslieville	2252	May.	3,	1912
Cowger, Daniel L	Bassano	2299	June	11,	1912
Collyer, Percy E.	Edmonton		June	17,	1912
Copson, Fred W	St. Albert	2310	June	17,	1912
Cameron, Wm. John	Calgary	2339	July	18,	1912
	Tilley	2340	July	18,	1912
Chrisman, Frank	Vermilion		Sept.	20,	1912
	Wetaskiwin	2397	Oct.	16,	1912
	Edmonton	2412	Nov.	8,	1912
Cox, Arthur	Calgary	2434	Dec.	18,	1912
Crosby, William	Exshaw	2435	Dec.	18,	1912
	Frank		Sept.	30,	1902
	Iowalta	1	Apr.	18,	1904
	Riviere Qul Barre		Apr.	18,	1904
	Morinville		Мау	26,	1904
	Didsbury		Mar.	24,	1905
Olckson, Jas	Calgary		Mar. Sept.	26,	1905
Dowsett, Nat.	Frank		Oct.	16, 22,	1905 1907
Dye, Jas. E.	Ponoka	- 1	Sept.	16,	1905
Deisting, C. G	Duhamel	_ {	Nov.	3,	1905
Dowling, Nelson	Edmonton		Mar.	11,	1906
Devillard, Louis	Edmonton		Mar.	11,	1906
Orader, Ernest	Lacombe	112	Apr.	25,	1906
Jawes, Albert A []	High River	121	Apr.	30,	1906
Davis, John B	Edmonton	1183	Nov.	27,	1909
	Medicine Hat		Aug.	11,	1906
Dickens, Chas	dille		Aug.	13,	1906
Dance, Walter H	nnisfail		Мау	20,	1907
Doolan, John T	ort Saskatchewan		Мау	31,	1907
Ooyle, John L	Langdon		une	4,	1907
	Calgary		une	• 4,	1907
	Mayville	1	une	7,	1907
Persch, Anton L I	acombe		une	7,	1907
obbie, Alex.	Leavings		uly Apr.	15,	1907
rury, wm.	Taber		ec.	1, 26,	1909
rinnon, Robt. McC.	Calgary		Iar.	23,	1907
eakin, Thos	Hillcrest	(	pr.	23, 8,	1908 1908
ickson, John	Red Deer	/	pr.	14.	1908
enning, Louis H.	Capscott	,	pr.	15,	1908
avis, Geo. O	rossfield	[	Iay	1,	1908
owsett, Alfred	Jorth Ronk	1	<b>I</b> ay	7.	1908
avis, Chris A.	ATOT		lay	18.	1908
chinis, Gien	Agravilla		lay	18,	1908
enner, Jos	DORAN Plans T. L.	{	ug.	6,	1908
unbar, Frank G	'hron Efilla		ept.	8,	1908
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<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.		TE SSU	
Third Class-Continued					
Davis, Clarence	Stavely	829	Oct.	2,	1908
Davis, Chrlstopher	Lethbridge	846	Oct.	6,	1908
Dingee, Harry	Lethbridge	867	Oct.	29,	1908
Dangerfield, James A	Olds	490	Dec.	30,	1909
Donnelly, Henry J	Wetaskiwin	*784	Mar	27,	1905 1907
Dawson, John C	Mountain View	455 550	July Dec.	15, 5,	1907
Denson, Alex. R	Bankhead	895	Mar.	24,	1909
Duffey, Alfred	Lethbridge	897	Mar.	24,	1909
Deugan, Hiram W	Coleman	910	Mar.	30,	1909
Darlmont, Jas	Edmonton	942	Apr.	3,	1909
Dickan, Ferd W	Ponoka	947	Apr.	17,	190 <b>9</b>
Dupmeyer, Jos	Edmonton	981	Apr.	20,	190 <b>9</b>
Davis, Geo. W	Falstaff	996	Apr.	22,	1909
Duncan, Alexr. D	Edmonton	1063	May	21,	1909
Dixon, Wm	Calgary	1117	Sept.	21,	1909
Dickie, Samuel	Lethbridge	1157	Oct.	5,	1909
Davey, John B	Calgary	1206	Mar.	7,	1910
Dawson, Wm	Macleod	1267	Mar.	28,	191 <b>0</b> 1910
Denike, Geo. H	Lacombe	1285 1324	Apr.	1,	1910
Davy, Stewart C	Calgary	1325	Apr.	8, 8,	1910
Davidson, Jas. F	Calgary	1696	Mar.	13,	1911
David, J. R	Vegreville	1368	Apr.	15,	1910
Darrow, Mason	Stirling	1369	Apr.	15,	191 <b>0</b>
Dunn, Robt. J	Calgary	1383	Apr.	21,	1910
Downing, Frank H	Bassano	1385	Apr.	19,	1910
Dixon, Wm	Calgary	1415	May	23,	1910
Dow, Alexr	Lethbridge	1477	Sept.	1,	1910
Dredge, Wm. H	Edmonton	1495	Sept.	16.	1910
Dow, Jas		1613	Mar.	7,	1911
Dixon, Geo. W	Macleod	1638	Mar	15,	1911
Davis, Wallace H		1649	Mar.	20,	1911 191 <b>1</b>
Dearden, Simon		1650 1672	Mar.	20, 24,	1911
De Wolfe, Wilburn		1769	Apr.	21,	1911
Dewar, Alex. K		1733	Apr.	10,	1911
Dankwerth, Wm. L  Desler, Hy. C	I	1779	Apr.	24,	1911
Dunn, Chas. W		1803	May	6,	1911
Downham, Mark	. –	1804	May	6,	1911
Davison, H. Y		1813	May	18,	1911
Damman, Wm	New Dayton	1826	May	26,	1911
Davis, Wm. A	Edmonton	1895	Aug.	18,	1911
Doten, Earl B		1932	Sept.	8,	1911
DeVore, Harley G	Edmonton	1960	Sept.	30,	1911
Dow, Gavin, M	Lethbridge	1998	Nov.	17,	1911 1911
Davis, Alfred J	Lethbridge	2015 1274	Dec. Mar.	19, 29,	1911
Desler, Geo. C		0440	Mar.	28,	1912
Desler, Geo. C		2035	Mar.	14,	1912
Draper, Harry	1		Mar.	22,	1912
Dubuc, Arthur		2098	Mar.	25,	1912
Dunn, Gerald A		2127	Apr.	4,	1912
Dyvig, Jacob		2128	Apr.	4,	1912
Davis, Newton	1	2129	Apr.	4,	1912
Dale, Lewis		2137	Apr.	10,	1912
Dobson, Fred. J		2164	Apr.	20,	1912
Davidson, Wm. H		2195	Apr.	24,	1912
Dowsett, Edward J		2229	Apr.	29,	1912
Dawson, Frank B	JBassano	2274	May	23,	191 <b>2</b>

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

The Steam					
NAME	ADDRESS	NO. OF CERT.	DATE OF ISSUE		
- Al-yod					
Third Class-Continued	Strathmore	2300	June	11,	1912
Duffy, James T	Edmonton	2311	June	17,	1912
	Edmonton	2381	Sept.	20,	1912
	Calgary	<b>23</b> 91	Oct.	7,	1912
	Calgary	2392	Oct.	7,	1912
man and long with	Red Deer	2416	Nov.	12,	1912
Those Phose R.	Edmonton	2424	Dec.	13,	1912
Dayison, John W	Calgary	2436	Dec.	18,	1912
Davison, John VV.		*184	Dec.	18,	1901
Edgerton, Guy	Red Deer	*394	Aug.	14,	1903
Through Taicing P	Calgary	*490	Mar.	4,	1904
Throwto Philo	Banff	*803	Mar.	31,	1905
Tramonda Thos. J	Edmonton	125	Apr.	30,	1906
The body Chast S	Calgary	147	May	31,	1906
mana John Jas.		219	Sept.	13,	1906
Thereart David		261	Apr.	6,	1907
Endersby, Jos. P.	1 .	311	May	29,	1907
Engen, Anton A Eggenberger, John K		327	May	29,	1907
Eggenberger, John		353 1436	June	4,	1907 1910
East, Alfred E.	Strathcona	400	June	7, 14,	1907
Engminger, Louis C	Lateonia Comment	419	June	19,	1907
Errett Wm. H	Namion	911	Mar.	30,	1907
Emmerson, Robt.	Denevae	492	Oct.	15,	1907
Ellia John W	Editorion	536	Oct.	28,	1907
Elliott Henry N	Carstairs		Jan.	20,	1908
Enard Arthur W	Calgary	004	Mar.	23,	1908
Elmhirst, Jos. A.		100	Aug.	6,	1908
Eiseman, Jos	Strome	188	Sept.	18,	1908
Endersby, John Geo	' F	10	Sept.	16,	1905
Elford, Albert	Grassy Lake	1009	Apr.	25,	1909 1909
Edwards, Orien	Cheadle	1 1 2 6 1	Apr. June	28, 20,	1911
Emmericks, John J	. Gleichen	1000	Apr.	28.	1909
Evans, John B	. Canmore	1003	July	9,	1909
East. Neal	Edmonton	1110	Sept.	21,	1909
Elder, Chas. G	Caigary Edmonton	1145	Sept.	24,	1909
Entwistle, Chas. H	Cardiff	11109	Nov.	24,	1909
Elliott, Thos	Innisfail	11149	Mar.	4,	1910
Emrich, Wm Enzenauer, Peter	Loma	1263	Mar.	24,	1910
Earl, Edgar G		1392	Apr.	25,	1910 1910
Egger, Christian	. Bowville	1411	June	21, 11,	1910
Elis, Fredk. B	. Coleman		June	11,	1910
Erickson, Eric A	. Milk River	1500	Oct.	20,	1910
Enyeart, Chas. F	. New Dayton	1914	Apr.	7,	1910
Evans, Geo. W	. Magrath	1614	Mar.	7,	1911
Emde, Wm. J	Coaldale		Mar.	20,	1911
Eld, Gust Eshpeter, Hy	· I	1714	Apr.	5,	1911
Ensign, Elmer G		. 1780	Apr.	24,	1911
Edwards, Jas. M	The second secon	1820	May	20,	1911
Evanson, Ed. M		1876	July	13,	1911
Earl, Alex	. Strathcona	1891	Aug.	16,	1911 1911
Evans, Earl L	. Leslieville		Sept.	7, 17,	1911
Evans, Thos. O		9038	Feb.	14,	1912
Eiklor, James J		• 0000	Mar.	25,	1912
Edmonds, Charles		1 0104	Apr.	24,	1912
Elynik, Fred		* 1	June		1912
Engen, Ole K	. Sufficiu	., 2001	lo une	11,	

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

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NAME	ADDRESS	NO. OF CERT.	1	TE SSU	
Third Class-Continued					
Evans, Alfred	Edmonton	2312	June	17,	1912
Eades, John J	Vermilion	2393	Oct.	10,	1912
24400, 00111		'	Ì		
Flack, Samuel	Red Deer		Dec.	10,	1912
Findlay, Jas. F	Leduc		Dec.	18,	1901
Fair, Francis Wm	Medicine Hat	*257	Aug.	18,	1902
Foster, Wm. W	Red Deer	: 1	May	13,	1903
Fluker, W. R.	Fort Saskatchewan	) 1	Apr. Mar.	18, 16,	1904 1905
Flett, Andrew R	Calgary	1	Mar.	24.	1905
Farren, Edgar	Edmonton		Mar.	31.	1905
Flintoff, Walter	Partridge Hill		Apr.	14,	1905
Ferguson, Ernest G	Fort Saskatchewan		Apr.	5,	1909
Falrman, Chas.	Medicine Hat	85	Apr.	11,	1906
Frizzeile, Jas. I	Lacombe	104	Apr.	24,	1906
Fullerton, Thos. W	Calgary	122	Apr.	30,	1906
Fordyce, J	Bowden		May	31,	1906
Faitainsiey, M	Morinville		Sept.	13,	1906
Fitzsimmons, G. E	Calgary		Sept.	24,	1906
Faikenberg, Fred D	Saron		May	15,	1907 1907
Forster, Michael	Leduc		May May	15, 23,	1907
Fortune, Geo.	Trochu Vailey Neapoils		May	29,	1907
Fryett, Arthur J	Sunny Siope		May	29,	1907
Frieson, J. F	Crossfield		May	29,	1907
Fuller, Albert	Calgary		June	4,	1907
Fox, Henry	Olds	380	June	10,	1907
Findley, Thos.	High River	429	June	19,	1907
Fricke, Chas. L	Erskine		Oct.	28,	1907
Fauver, A. E	Lamerton	1	Oct	28,	1907
Freeze, Benj. H	Edmonton		Apr.	2,	1908
Fried, Vincent J	Granum	,	Apr. Mar.	2, 15,	1908 1911
Firth, Hedrick	Lethbridge	_	Apr.	8,	1908
Fowler, Dan T.	Magrath		Apr.	8,	1903
Friesen, Peter	Didsbury		Apr.	15,	1908
Fenner, John S	Camrose	718	May	18,	1908
Farquhar, Alex. W	Calgary	802	Sept.	22,	1908
Fortin, Chas. C	Morinville		Jan.	18,	1909
Forland, Ole	Lethbridge		Mar.	24,	1909
Feargue, Francis J	Pincher Creek		Apr.	1,	1909
Forrest, Jas. O	Lacombe	_ 1	Apr.	5, 1 <b>6</b> ,	1909 1909
Fowlie, Wm	Biayney	1	Apr. Apr.	20,	1909
Forsiin, John	Taber		Apr.	25,	1909
Francis, Jos.	Taber	1	Apr.	25.	1909
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Apr.	5,	1911
Fullerton, Daniel W	Taber	1012	Apr.	25,	1909
Fielding, Jas	Lethbridge		June	25,	1910
Farrend, Chas. H	Barnwell	1	Sept.	28,	1909
Finstad, Ole A	Claresholm		Sept.	28,	1909
Fansher, Fred			Sept.	29,	1909
Fedun, John			Sept.	29,	1909
Frey, Frank Fairbairn, Robt.	Frank		Oct. Oct.	11, 22,	1909 1909
Fietz, Otto		:	Mar.	15.	1910
Fisher, Bert	Coleman		Mar.	21.	1910
Fowier, Willis L	High River		Mar.	22.	1910
Frank, Christopher E	Frankburg		Mar.	24,	1910
Fedoruk, Tyofl	Vegreville	1305	Apr.	6,	1910

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE (		
Third Class—Continued					
Fenton, S. A	Taber	1370	Apr.	15,	1910
Fletcher, John R	Grassy Lake		Apr.	19,	1910
Francis, Wm	Carlstadt	, ,	Apr.	25,	1910
Frigon, Fred	Calgary	1447	July	15,	1910
Fike, Jesse J	Barnwell	1511	Sept.	21,	1910
Forey, John Jos	Big Valley	1514	Sept.	21,	1910
Forster, Jas	Hillcrest	1627	Mar.	11,	1911
Firth, Wilfred	Macleod	1637	Mar.	15,	1911
Farrell, Percy E	Carstairs	1652	Mar.	20,	1911
Ferguson, Dugald	Nanton	1734	Apr.	10,	1911
Frizzelle, Jinkle, G	Calgary	1735	Apr.	10,	1911
Freisen, Ger. H	Sunny Slope	1715	Apr	5,	1911
Ferschweiler, Jno	Trochu	1716	Apr.	5,	1911
Flynn, Chas	Calgary	1736	Apr.	11,	1911
Fleming, Jas	Medicine Hat		Apr.	24,	1911
Forsyth, Jas. A	Red Deer		$\mathbf{Apr}$	26,	1911
Fleming, Andrew B	Irricana		May	6,	1911
Frache, Richard	Lethbridge	,	June	20,	1911
Foster, Arthur C	Calgary		Aug.	22,	1911
Foughty, Clifford R	Carlstadt	_ (	Sept.	8,	1911
Forbes, John	Edmonton	,	Dec.	12,	1911
Freeman, Herbert B	Edmonton		Dec.	12,	1911
Flamme, August W	Bow Island		Mar.	13,	1912
Fitzpatrick, John	Bellevue	3	Mar.	18,	1912
Farmer, Raymond W	Morningside		Apr.	10,	1912
Fletcher, James	Metiskow		Apr.	20,	1912
Freeland, Charles	Hindville		Apr.	29,	1912
Fenwick, Charles	Strome		June	10,	1912
Fairhurst, George Farnsworth, Joseph	Coleman	. !	June	14,	1912
Findlay, Alex.	Seven Persons N. Edmonton		July Sept.	19, 27,	$1912 \\ 1912$
Gagnon, Alfred	St Albort	***	M	90	1900
a = _	St. Albert		May	28,	1902
George, John	Red Deer		Apr. June	23, 13,	1904
Giddings, Thos.	Calgary	,	Mar.	14,	1904
Grigat, John	Leduc		Apr.	18,	1904
	Edmonton		Apr. Apr.	18,	1904
Gardner, Marques			Mar.	24,	1905
Green, Jno	Medicine Hat	_ (	Мау	25,	1912
Gallup, Walter E	Medicine Hat	1	June	14,	1905
Grote, Frank	Bon Accord		Aug.	31,	1905
Griffen, Henry	Stavely	. (	Sept.	16,	1905
Grote, Alex. E	Spruce Grove	1	Mar.	16,	1906
Gibeauft, J. Eugene	Morinville	,	Mar.	16,	1906
Grai, John	Fort Saskatchewan	92	Apr.	11,	1906
Garneau, Larry	Stratheona	224	Sept.	13,	1906
Gouley, Maurice W	Red Deer		Sept.	27,	1906
Grant, Farquhar	Edmenton	267	Apr.	29,	1907
Glaspie, Ed. H.	Hurry		May	31,	1907
Grue, Simon T.	Camrose	1	June	14,	1907
Grove, Benj. K.	Camrose		June	14,	1907
Colombia B	Lewisville	412	June	14,	1907
Galentine, Frank	High River		June	19,	1907
Graves, Jas. H	Calgary	1223	Mar.	15,	1910
Giese, Gottlieb W.	Spruce Grove	499	Oct.	15,	1907
Granam, Willard	Crossfield		Oct.	24,	1907
Gwilt, Geo.	Didsbury		Oct.	24,	1907
Gray, John A.	Claresholm		Mar.	23,	1908
Gibson, Wm. H.		601	Apr.	8,	1908
*Indicates Certificate v		·			

<sup>\*</sup>Indicates Certificate was granted by North-West, Tarritories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME ·	ADDRESS	NO. OF		DATE (	
		CERT.	<u> </u>	122[	
Third Class—Continued					
Gerrard, John	Lundbreck	2074	Mar.	18,	1912
Glrber, Dan. E		648	Ap <b>r</b> ∙	4,	1908
Gillett, Geo. I		681	Мау	1,	1908
Grundy, Jas		684	Мау	1,	1908
Greene, Geo. A		708	Мау	18,	1908
Gustafson, Ivan		1375	Apr.	19,	1910
Gray, Wm. J	1	715 739	May	18,	1908 1908
George Wm. S.	1	740	Aug.	6, 6,	1908
Graham, Jno. M		746	Aug.	13,	1908
Gotobed, B	Strathcona	- 1	Sept.		1908
Gale, Sydney H	Calgary	:	Sept.	24,	1908
Gillies, Wm			Dec.	23,	1908
Goodfellow, Jas	Calgary	118	Apr.	30,	1906
Goeson, Geo. J.		912	Mar.	30,	1909
Gilmore, David			Mar.	<b>3</b> 0,	1909
Gibb, David T			Apr.	20,	1909
Gusa, Ernest E			Apr.	25,	1909
Grobe, Chas. W			Apr.	28,	1909
Geertruyden, H. Van			July	25,	1909
Gullekson, Edwin L			Aug.	27,	1909 1909
Guertin, Jos. E	Wetaskiwin		Sept. Sept.	7, 15,	1909
Gowdy, Wm. T			Sept.	21,	1909
Green, Jay H	Brant		Sept.	21,	1909
Grimoldby, Walter H			Sept.	29,	1909
Gobell, Edward	Royal View	1	May	18,	1912
Grigat, John Jr	Leduc	1286	Apr.	1,	1910
Gunderson, Ingval J	Warner		Apr.	14,	<b>1910</b>
Gruldl, Stephen	Manfred		May	17,	1910
Goodwin, Wm	Strathcona		July	15,	1910
Gerrie, Geo	Oxville		Sept.	16,	1910
Gibbons, Geo. A. R	Battenburg		Sept.	16,	1910
Guess, Herbert	Spruce Grove		Sept. Oct.	16, 20,	1910 1910
Gosling, Fredk.	Morley	1	Vov.	14,	1910
Gilmer, Allan	Provost		/Iar	24,	1911
Gerchke, Wm	Walsh		pr.	15,	1911
Green, Chas. L	Calgary	t	pr.	19,	1911
Bross, Hy. A	Burdette	1702 N	Iar.	31,	1911
Graham, Oscar J	Grassy Lake		Iar.	31,	1911
	Dalroy		pr.	10,	1911
Gray, Jesse L	Macleod	1	pr.	24,	1911
dunderson, Cornelius	Warner		Iay	26,	1911
	Summerview		Iay	26,	1911
	Edmonton		une une	9,	1911 1911
	Calgary		uly	13, 13,	1911
******** * * * * * * * * * * * * * * *	Calgary	1000 14	ug.	22,	1911
Fraham, Wm. A.	Coaldale	I.	ug.	24,	1911
Fray, Irving	Yetwood		ug.	24,	1911
ray, Elgin W	Entwistle	1	uly		1912
augner, Arthur O	Lethbridge	,	ct.		1911
ray, Luke Chas	Calgary		ept.	10,	1912
ellhorn, Wilhelm	Strathcona	1	ec.		1910
ellhorn, Wilhelm	Strathcona				1912
Hoer, Harrison	iron Springs				1912
oetz, Emil Jos	Evergreen	_ :-			1912
raf, John Peter	Provost	_ 1			1912
anser, Moritz A	LIUVUSI	2139 A	$\mathbf{pr}$	18,	1912

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	1	TE SSU	
Third Class-Continued					
Greenwood, Geo. F	Warner	2150	Apr.	16.	1912
Grettum, Clarence	Bawlf	2166	Apr.	20,	1912
Grant, William, Jr	Kiliam	2167	Apr.	20,	1912
Galr, Davld	Strome	2168	Apr.	20,	1912
Grlggs, Ralph	Suffield	2171	Apr.	23,	1912
Gardner, Harold M	Medicine Hat	2178	Apr.	23,	1912
Gaskell, Edwln	Edmonton	2201	Apr.	25,	1912
Grainger, Albert	Wainwright	_ 3	Apr.	29,	1912
Gllklnson, Robt. J	Clover Bar		Apr.	29,	1912
Goldsmith, Oliver	Ethelwyne	:	Apr.	29,	1912
Gleason, Nathan S	Red Deer	,	Мау	3,	1912
Goodwin, Edwin C	Bassano	,	Мау	22,	1912
Graham, John	Edmonton		Мау	29,	1912
Grimoldsby, John D	Strathcona		June	17,	1912
Griffith, Lewis O	Calgary	1	July	18,	1912
Galonot, Ernest L	Cowley		July	19,	1912
Glennon, Joshua	Big Valley		Oct.	23,	1912 1 <b>912</b>
Gleinon, Joshua	Banff	2421	Dec.	4,	1914
Hewer, Jesse J	Strathcona	*24	Oct	9,	1899
Harrold, David	Edmonton	- 1	May	28.	1900
Heffner, Frank		t	Nov.	15.	1900
Holden, J. A.			Dec.	31,	1900
Hober, Jno. W.		2	Jan.	7,	1902
Harris, Ed. S	Star	1	Dec.	18,	1902
Hudson, Arthur C	Edmonton	1	Jan.	6,	1903
Hehsdoerfer, Jos	Edmonton		May	13,	1903
Haney, Sylvester	Lacombe		Jan.	28,	1904
Houghestol, Anton	Wetasklwin		Apr.	18,	1904
Harrold, Jno. Jr	Edmonton	*534	Apr.	18,	1904
Hankehadl, Edgar O	Duhamel	*785	Мау	27,	1905
Hardy, Albert Wm	Lake de May	878	Feb.	10,	1909
Henschel, August	Stratheona		Sept.	23,	1905
Hart, Wm. J	Raymond		Sept.	16,	<b>19</b> 05
Hacking, Geo. A.	Magrath	1	Sept.	16,	1905
Haybarger, Chas. A	Fort Saskatchewan		Sept	16,	1905
Hewitt, Robt. E	Bon Accord	1	Sept.	18,	1905
Hays, Morion L	Totleid	1	Apr.	11,	1906
Headley, Henderson Higglns, Jas. A.	Medicine Hat		Apr.	11,	1906
Humbke, Detriche E.	Pottle Birren		Apr.	11,	1906
Hunter, Wm. Jno.	Fort Saglatabarran		Apr.	20,	1906 1906
	Strathcona		Apr. May	24, 4,	1906
Hunter, Fred H.	Didshury		мау Мау	31,	1906
Hallett, Geo. E.	Camrose .	,	July	7,	1906
nenry, Ortus	Claresholm	1	Aug.	13,	1906
rieignington, J. H.	Rosenvoli		Apr.	7,	1910
Hammitt, J. A.	Wetaskiwin		Sept.	20,	1906
Harris, A. J.	Chinman	223	Sept.	13,	1906
mainly, Will. B.	Edmonton		Apr.	29,	1907
reinners, Jno	Miliot	276	Мау	15,	1907
micheock, Arthur L	Pine Lake	292	May	20,	1907
narris, Ed	Mayton		Мау	23,	1907
Hardman, Geo. S.			May	23,	1907
Hilts, Nell A Huff, Wm. H.	Didsbury		Мау	29,	1907
Harrison Davis D	Crossfield	- 1	Мау	29,	1907
Harrison, David R	Valley City		Мау	31,	1907
Handley, J. T. Hauser, John R.	Strome	,	June	7,	1907
Hauser, Geo. W.	Strome		June	14,	1907
#Tradiontes Classici	was granted by North-W		June	14,	1907

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Beilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.		TE SSU	
Third Class—Continued					
Halstead, Arthur L	Edberg	407	June	14,	1907
Hoar, Wm. J		409	June	14,	1907
Hartt, Guy C		421	June	19,	1907
Herron, John A		915	May	30,	1909
Honan, John E		431	June	19,	1907
Hislop, Thos. L		443	June	15,	1907
Havervold, Robt. L		462	July	15,	1907
Henderson, Clifton C	Elinor	470	July	15,	1907
Heitman, Herman	Pincher Creek	473	July	15,	1907
Hlcks, Ephralm B		474	July	15,	1907
Harding, Norris H	Lethbridge	848	Oct.	6,	1908
Hailman, Sydney E	Carstairs	488	Oct.	12,	1907
Horne, Ned		506	Oct.	15,	1907
Healey, Jos	Bankhead	548	Dec.	5,	1907
Henderson, John H	Taber	554	Dec.	26,	1907
Harris, Geo. A	Calgary	555	Jan.	20,	1908
Horwood, Walter E	Calgary	560	Jan.	20,	1908
Hyde, Geo. T	High River	581	Mar.	23,	1908
Hutchings, Percy J	Edmonton	595	Apr.	2,	1908
Howard, Sam	Frank	2076	Mar.	18,	1912
Hills, Wm. C	Hillcrest	624	Apr.	9,	1908
Hilts, Simon, W	Dldsbury	654	Apr.	15,	1908
Hoy, Walter M	Medicine Hat	665	Apr.	27,	1908
Haskins, Martin	Vermillon	670	Apr.	27,	1908
Hayes, Fred J	Vermillon	677	April	27,	1908
Hall, Richard	Lloydminster	673	Apr.	27,	1908
Hlgginson, R. R	Kltscoty	671	Apr.	27,	1908
Holgate, Jno.	Airdrle	685	Мау	1,	1908
Haselwood, Alfred W	Rosenroll		Мау	7,	1908
Hunting, Humphrey W	Lacombe		Sept.	14,	1908
Holbrook, Peter E	Stettler		Sept.	14,	1908
Hanlan, W. J.	Edmonton	1	Sept.	18,	1908
Hallvarson, Peter W	Black Diamond		Sept.	22,	1908
Haeflin, Mark E	Exshaw		Sept.	22,	1908
Henderson, Alex.			Oct.	2,	1908
Hendrickson, Jno			Oct.	2,	1908
	Lethbridge	)	Apr.	9,	1909
Hangen Deter C	Blayney		Apr,	16,	1909
Hansen, Peter C	Cleverville	1	Apr.	20,	1909
Hultgren, Victor	Stavely		Apr.	20,	1909
Horne, Geo., Jr	Edmonton	1	Apr.	20,	1909
Hall, Davld N	Grassy Lake		Apr.	30,	1909
	Sedgewick	1	Apr.	22,	1909
	Camrose		Apr.	22,	1909 1909
Haugen, Peter M	Bardo	1	Alpr.	22,	
Hardy, Herbt. J	Exsnaw		Apr.	28,	1909
Henderson, A. J	Langdon		Apr.	28,	1909
Haupert, John	Lewisville	'I'	Apr.	30,	1909
Hunter, Jas. S	Lothbailer		May	21,	1909
Hendrie, Jas. M	Outonate		Sept.	15,	1909 1909
Hermann, Chas	Wich Dive-		Sept.	21, 21,	1909
Herrick, Oscar F.	Evremore		Sept. Sept.	21,	1909
Hiney, Allan	Cochrana	,	sept. Sept.		1909
Hatfield, Wilmer B	Cochrane		Nov.	21, 13,	1909
Hawkes, Wm.	Edmonton		Dec.	10, 4,	1909
Heighs, Geo., Jr.	Tron Chalage		Mar.	15,	1910
Hewitt, Jas. R.	Cowley		mar. Mar.	21,	1910
Homer, Samuel C.	Claresholm		Mar.	29,	1910
Hazelwood, Ernest Wm	Rittern Lake	1287			1910
ATT diester Contistent	Directi Take	1287	Apr.	1,	TAIA

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE OF					
Third Class—Continued								
Hauser, Anthony B	Strome	1288	Apr.	1,	1910			
Hicks, Frank I		1315	Apr.	7,	1910			
Harris, Thos. Wm	Raymond	1316	Apr.	7,	1910			
Hislop, Wiiber	Caigary	1320	Apr.	7,	1910			
	Crossfield	1	Apr.	11,	1910			
Hickox, Wm. C		í <b>1</b>	Apr.	11,	1910			
Hoite, Oie			Apr.	13,	1910			
Hansen, Fred			Apr.	13,	1910			
Hammer, Leo			Aþr. Apr.	14,	1910 1910			
Hipp, Wm		, ,	Apr. Apr.	15, 22,	1910			
		1	мау Мау	21,	1910			
Harroid, John		1 . 1	Apr.	25,	1910			
Hamilton, Walter		, ,	June	9,	1910			
	Pincher Creek		June	11,	1910			
Hughes, Robt. Samuel	Cardiff	1443	Juiy	14,	1910			
Hali, Jesse D		1466	Aug.	30,	1910			
Horn, Peter		1467 ].	Aug.	30,	1910			
Horn, Wm			Sept.	1,	1910			
Hansen, Arney			Jan.	20,	1911			
Hill, Geo. S		1	Sept.	16,	1910			
Harwood, Thos. R			Sept.	21,	1910			
Hohle, John F.			Sept.	23,	1910			
Heaton, Frank			Nov. Mar.	15,	$1910 \\ 1911$			
Holte, M. D		1 1	mar. Mar.	7, 16,	1911			
Hough, Floyd G			Mar. Mar.	20,	1911			
Halioran, Fred P.		1	Mar.	22,	1911			
	Edmonton		Mar.	22,	1911			
Hailett, John		1	Mar.	24,	1911			
Hanna, Robt. J		1680	Mar.	28,	1911			
Howorth, Chas	Caigary	1753	Apr.	15,	1911			
Hagen, Henry		1765	Apr.	19,	1911			
Heisler, Jacob	Spring Lake		Apr.	5,	1911			
Hennessy, Robt. G	Bassano		Apr.	5,	1911			
	Medicine Hat		pr.	10,	1911			
	Lethbridge		Apr.	24,	1911			
	Lucky Lake		Apr.	24,	$1911 \\ 1911$			
	Diamond City	,	May May	26, 26,	1911			
Hardy, Robt. W.			June	9.,	1911			
	Medicine Hat	,	Tune	20,	1911			
	Edmonton		Juiy	15,	1911			
	Edmonton		uiy	18,	1911			
	Castor	1892 A	Jug.	16,	1911			
Hornberger, Raymond	Reid Hill	1910 A	lug.	24,	1911			
	Red Deer	1929	sept.	27,	1911			
Henry, Wm. G.	Calgary		Sept.	8,	1911			
Hunerkoch, Geo. W	Magrath	- 1	Sept.	8,	1911			
Harris, John	Fishburn		Sept.	9,	1911			
Hossier, Chas. A			Oct.	18,	1911			
Heighington, Frank H	Palmary		Oct.	18,	1911			
Houghton, Ernest			Oct. Oct.	20, 24,	1911 1911			
Hanson, William		.,	Jou. √ov.	11,	1911			
Holmes, George E.		1	lov.	16.	1911			
Holland, Milton C.	Nobie		Dec.	19,	1911			
Harman, Frank E.	Pincher Stn	- 1	ot.	24,	1911			
Harman, Frank E	Pincher Stn	- 1	Dec.	17,	1912			
Hinkle, John F	Carlstadt		an.	16,	1912			
AIndicator Contificate	mon amounted by North TI							

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	1	TE SSUI	
Third Class-Continued					
Holmberg, Robt. E	Calgary	2037	Feb.	14,	1912
Halverson, John A	Edgerton	2101	Mar.	25,	1912
Halvorson, Arent. C	Metiskow	2140	Apr.	10,	1912
Halvorson, Henry G		2141 [	Apr.	10,	1912
Halvorson, Elmer J			11	10,	1912
Holt, Olaf A		: !	Apr.	23,	1912
	Edmonton		Apr.	24,	1912
Holmgren, Walter		/	July	$\frac{16}{24}$	1912 1912
Hoskins, James			Apr. Apr.	24,	1912
Haines, Charles M. J			Apr.	26,	191
	Canmore	:	Apr.	26,	1912
	Calgary	2207	Apr.	26,	1912
Hertel, Christian		2437	Dec.	18,	1912
Howard, Henry		, l	Apr.	29,	1912
Hawryschuk, George			Apr.	29,	1912
Harding, Montague C			Apr.	29,	1912
Howes, Fred R			Мау	3,	1912
Heinze, William Ed			May	3, 2 <b>2</b> ,	1912 1912
Haney, Edward			May May	22,	1912
	Edmonton		June	17.	1912
Hindman, James		1,	July	19,	1912
	Stavely		Sept.	17,	1912
Hardy, Thomas		2369	Sept.	17,	1912
Hathaway, Harold		2394	Oct.	10,	1912
Hudson, Benj. R		2398	Oct.	17,	1912
	Calgary	1 1	Dec.	18,	1912
Harman, Noah S. A		1 1	Dec.	13,	1912
Hildebrandt, Oscar	Strathcona	2427	Dec.	13,	1912
Imeson, Geo	Stony Plain	*206	Dec.	18,	190
Ibson, Clause W		*804	Mar.	31,	190
Isaacson, Frank		1	Apr.	13,	190
	Molstad		Sept.	20,	190
Isaacson, Arthur F			Oct.	22,	190
	Calgary		Mar.	23, 7,	1908 $1908$
	Claresholm	1	Oct. Apr.	16,	190
	Edmonton	1 '.	Apr.	20,	190
Inglesby, E. C.		1 3	Nov.	16.	1909
Imler, Jno. C			Apr.	8,	1910
Ireland, James H		1 1	Mar.	11,	191
Ingram, Wesley	Tofield	1697	Mar.	31,	191
Ives, Albert J			Mar.	31,	191
Ireland, Wm. Jas			Aug.	24,	191
Innes, James L			June	17,	191
Iball, William	Kipp	2354	July	19,	191
Jackson, Chas		*66	Jul <b>y</b>	19,	190
Joyner, Chas. A			Oct.	2,	190
James, Dunham D			Nov.	1,	190
Jeune, Ivan			Feb.	13,	190
Jamieson, Johnston		, ,	Apr.	24,	190
Johnson, Conrid			Aug. Oct.	29, 15,	190 190
James, F. S		1 2	Sept.	16,	190
Johnson, Elijah			Dec.	29,	190
Johnson, Ed			Apr.	20,	1900
Jenson, Louis C			Apr.	25.	190

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE		
Third Class—Continued					
Jones, Jack	Bankhead	140	Мау	14,	1906
Johnson, Benj. F	Raymond	186	Aug.	13,	1906
Jones, Fred	Coleman		Aug.	13,	1906
Job, Chas	Strathcona	222	Sept.	13,	1906
Jordon, A. H		271	Apr.	22,	1907
Jesse, Ed	Hardisty	316	May	29,	1907
Johnson, G. Anton			$\mathbf{May}$	31,	1907
Johanson, Henry			June	4,	1907
Johnson, Jos			Мау	15,	1907
Jones, Arthur		1	June	14,	1907
Johns, Thos. L			July	15,	1907
Jamieson, Jesse H			Oct.	15,	1907
Johannson, Jno. T		521	Oct.	24,	1907
Jepson, Walter			Mar. Apr.	22, 8,	1908 1908
Johnston, Percy W			Apr. May	18,	1908
Johnson, Elmer		_ 4	мау Мау	18,	1908
Julien, Eugene			Мау	18,	1908
Johnson, Chas. J.			Oct.	2,	1908
Jenson, Ole E			Oct.	2,	1908
Jones, Isaac			Oct.	6,	1908
James, John E	Taber	ſ	Oct.	6,	1908
Johnson, Alfred	Hillcrest	917	Mar.	30,	1909
Jackson, Thos. C	Stettler	962	Apr.	13,	1909
James, Griffith L		975	Apr.	17,	1909
	Lethbridge	1103	Sept.	15,	1909
Jermaine, Stephen		1038	Apr.	29,	1909
Johnson, W. E			Мау	4,	1909
Jones, Arthur W		1	Мау	20,	1909
Johnson, John G			May	21,	1909
Jones, Wm. Daniel			Мау	29,	1912
Johnson, Chas. J			Jan.	10,	1910
Jones, Wm. C	Bow Island		Mar.	25,	1910 1910
Jackson, Roy E.			Apr.	6, 8,	1910
Johnston, Albert J.			Apr. Apr.	26,	1912
Jordan, Glen L.			Apr.	11,	1910
Jones, Albert E.			Apr.	19,	1910
Johnsrud, Alfred			Oet.	17,	1910
Johnson, Jas. F., Jr.		1	Oct.	20,	1910
Jones, Samuel		,	Mar.	7,	1911
James, Reginald	Coleman	1630	Mar.	11,	1911
Jensen, Rasmus		1681	Mar.	28,	1911
Johnson, Wm. F.		2021	Dec.	27,	1911
Jones, Wm. N.		1814	Apr.	18,	1911
Jenkins, Jas.		1831	May	26,	1911
Jelly, Alf.		,	July	19,	1911
Johnson, Ellin	Caigary		Aug.	26,	1911
Joseph, Orvil E.	Macleod		Sept.	8,	1911
Jantzen, Peter H	Caigary		Sept.	8,	1911
Johnson, Benj. C	Magrain		Sept.	9,	1911
Johnson, Joseph	Plackia	4	Oct.	24,	1911 1912
Johnson, William			Feb Feb.	14, 22,	1912
Jackline, Morley	Lethhridge		Mar.	22, 13,	1912
Jones, Ray			May	1,	1912
Jackson, Geo. Alex.			May	8,	1912
Jeffray Philin	Granum		Aug.	14,	1912
berred, rump					
Johnson, John Peter	Calgary	2376 (8	Sept.	19,	1912

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	i	re ( SSUE	
Third Class-Continued			I		
Krause, Otto	Innisfall	*171	Oct.	1,	1901
Kanngiesser, Simon			Apr.	18,	1904
Kelsey, A. F		*535	Apr.	18,	1904
Knapp, Henry H	Edmonton		Oct.	15,	1904
Kerwin, James	Leavings		Mar.	16,	1905 1905
Kolner, Bernard	Millet	*793 *49	Mar. Apr.	27, 25,	1900
Klapstein, Ed	Spruce Grove	*819	Apr.	14,	1905
Kallis, Ed	Strathcona	*847	May	26,	1905
Knight, Harry P	Edmonton	35	Sept.	16,	1905
Krlnke, August		46	Sept.	18,	1905
Kerr, John	Calgary	64	Mar.	9,	1906
Kennedy, Dent	Calgary	124	Apr.	30,	1906
	Didsbury	154	May	31,	1906
Kiddle, Thos. M	Stirling	165	Aug.	11,	1906
Kearney, W. J	Claresnolm	178 217	Aug.	13, 13,	1906 1906
Kjosness, Peter P Kendrews, Jos. W	Martins	250	Sept.  Oct.	10, 5,	1906
Krinke, Benj	Highland Park	249	Oct.	5,	1906
Knowles, Kenneth E	Wetaskiwin	264	Apr.	25,	1907
Kremer, David H		294	May	20,	1907
Kjorsvik, Albert	Eagle Hill	305	May	23,	1907
Kittlitz, Ed	Bruederheim	329	May	31,	1907
Kenny, John	Calgary	918	Mar.	30,	1909
Knape. Ernest P	Calgary	344	June	4,	1907
Keegan, Dan	Morley	355	June	4,	1907
Kreamer, Wm. W		384	June	14,	1907
Keith, Scott	Taber	551 1143	Dec. Sept.	26, 21,	1907 1909
Kniseley, Arthur C		669	Apr.	27,	1908
Kadlec, Frank	Wetaskiwin	712	May	18,	1908
Kinne, Fred	Calgary	750	Aug.	28,	1908
Kemp, Robt. M	Duagh	816	Sept.	28,	1908
Keoster, Carl H	Granum	834	Oct.	2,	1908
Keeler, Ralph A	Lethbridge	851	Oct.	6,	1908
Kendrew, John T	Edwell	888 941	Mar.	20, 2,	1909 1909
Kalis, Theodore	Maclood	953	Apr. Apr.	7,	1909
Knudson, Loues	Killam		Apr.	22,	1909
Kundson, Chas. A			Sept.	10,	1909
King, Benj.	Lethbridge	1227	Mar.	15,	1910
Keffer, J. John	Frank	2078	Mar.	18,	1912
Kltchen, Elroy R	Cayley	1265	Mar.	24,	1910
Kittlitz, Chrystian	Bruederheim	1307	Apr.	6,	1910
Kneis, Louis			Apr.	6,	1910
Krutz, John	Calgary		Apr.	8,	1910
Klinger, Hy	Stirling	1372 1428	Apr. June	15, 14,	1910 1910
Kjosness, Alfred			Sept.	21,	191
Kuhl, Edwin			Sept.	21,	191
Klnnen, Peter	Independence	1509	Sept.	21,	191
Kruse, Herman	Hastings Coulee	1542	Oct.	7,	191
Knight, O. L	Taber	1586	Nov.	17,	191
Kremper, Ernest			Nov.	23,	191
Kirkby, Theo			Mar.	7,	191
Kolschorofsky, Ed	Stony Plain	1698	Mar.	31,	191
Kirstein, Aug Klaus, John S	Gleichen	1720 1739	Apr.	5, 19.	191 191
Klaus, John S			Apr.	24,	191
AMANUALUE. TY YEL IEM	Edmonton	2100	,,/4+	₩ =,	

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.		DATE O	
Third Class—Continued			<u>                                     </u>		
	G-1	1051	] [T	10	1011
Kemp, George F		1851	June	13,	1911
		1853	June	16,	1911
Klassen, Abm. W		1900	Aug.	22,	1911
Kaatz, Ed. A		1912	Aug.	24,	1911
Kelly, John D		1937	Sept.	8,	1911
Kuhl, Edward		2375	Sept.	19,	1912
Kidd, George		2029	Jan.	16,	1912
Kirkham, John T	Macleod	2077	Mar.	18,	1912
Kerr, William		2079	Mar.	18,	1912
Kilmer, Owen		2130	Apr.	4,	1912
Knight, Herbert		2228	Apr.	29,	1912
Kinsella, Chas. A			June	17,	1912
Kerr, John	Calgary	2342	July	18,	1912
Lamoureux, Alcide			Nov.	15,	1900
Lee, Geo		*2442	Dec.	20,	1912
Lewis, Wm. H			Aug.	28,	1905
Lamoureux, Alp	Lamoureux	*186	Dec.	18,	1902
Loiselle, Jerry	Red Deer	1599	June	4,	1911
Lundy, Wm. Thos	Innisfail	*227	Apr.	23,	1902
Lynch, Alix. W	Blairmore	*259	Aug.	18,	1902
Lyseng, Knut K	Bittern Lake	*390	Aug.	7,	1903
Lindberg, Erick	Calmar	*510	Apr.	18,	1904
Langhausen, Jacob	Fort Saskatchewan	*523	Apr.	18,	1904
Langhausen, Peter	Fort Saskatchewan	*524	Apr.	18,	1904
Lee, Andrew E	Wetaskiwin	*525	Apr.	18,	1904
Lehman, Harrison	Edmonton	*564	Feb.	15,	1908
Logan, John	Penhold	*774	Mar.	24,	1905
Logan, Dan	Red Deer	*783	Mar.	24,	1905
Lee, Oscar E	Wetasklwin	*788	Mar.	27,	1905
Long, Albert W		36	Sept.	16,	1905
Lindholm, Andrew G. J	Burnt Lake	60	Dec.	27,	1905
Lee, Albert	Wetasklwin	97 [.	Apr.	20,	1906
Lalne, Francois P		138	May	14,	190 <b>6</b>
Lambe, Alex	Didsbury	150	May	30,	1906
Linkous, Jas. B	Raymond	173	Aug.	13,	1906
Lindsay, Samuel D		212	Sept.	13,	1906
Lennox, Jas. A	Red Deer	251	Oct.	5,	1906
Luigi, Llega		256	Dec.	28,	1906
Lawrence, Fred'k. S	Fort Vermilion	544	Oct.	29,	1907
Lawrence, Fenwick N	Edmonton	260	Feb.	23,	1907
Lavoll, Lewis J		290	May	20,	1907
Lancaster, Robt. V.	Calgary	736	July	24,	1908
Latam, Myron B	Content	371	June	7,	1907
Lehman, Sam	Nanton	438	June	19,	1907
Lamoureux, Hermida	Lamoureux	502	Oct.	15,	1907
Lamoureux, Albert	Lamoureux	503	Oct.	15,	1907
Lee, Thos. H	Olds	518	Oct.	24,	1907
Lewis, Lyman L		526	Oct.	24,	1907
Lang, Wm	Okotoks		May	26,	1908
Lyon, Omar	Blayney	571	May	23,	1908
Lee, John A	Edmonton		Apr.	2,	1908
Lee, Lars	Leduc		Apr.	27,	1908
Loveless, Peter	Lloydminster		May	18,	1908
Lucas, Sam B	Daysland	1	May	18,	1908
Lansing, Geo	Leavings	:	Aug.	2,	1910
Littlefield, Chas. W	Eagle Hill		Mar.	26,	1909
Large, Eugene	Frank	- 1	Mar.	30,	1909
Lehman, Peter L	Plncher Creek	1	Apr.	1,	1909
Laut, Frank	Ena.		Apr.	9,	1909
	vas granted by North W				

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	NAME ADDRESS		DATE OF		
Third Class-Continued					
Link, Ronald F	Lethbridge	945	Apr.	6,	1909
Lunn, Edward		963	Apr.	13,	1909
Lewis, Isaac H	Killam	1001	Apr.	22,	1909
Long, Geo. S		1039	Apr.	29,	1909
Lunder, Andrew H		1045	Apr.	30,	1909
Leonard, Jas. F		1049	May	1,	1909
Larson, Edwin H		1050	May	1,	1909
Lindsey, Horace F	Strathcona	1075 1079	May	26,	1909 1909
Larson, Harry LaBonte, Fred		1125	June Sept.	1, 21,	1909
Layenture, Arthur		1146	Sept.	25,	1909
Lawrence, Herman M		1162	Sept.	29,	1909
Long, Herbt. Wm.		1187	Dec.	17,	1909
Lawrence, Sheridan		741	Aug.	6,	1908
Laroux, Oliver		742	Aug.	6,	1908
Lloyd, Roy A		761	Sept.	11,	1908
Love, Thos		835	Oct.	2,	<b>190</b> 8
Lindsay, Alvan A		1598	Jan.	6,	1911
Long, Henry G		1450	July	15,	1910
Lewis, Geo. H	Calgary	1209	Mar.	7,	1910
Low, Ralph E.	Carmangay	1276	Mar.	29,	1910
Lloyd, John WLotan, Herbt. N		$\begin{array}{c} 1277 \\ 1289 \end{array}$	Mar. Apr.	29, 1,	1910 1910
Linquest, Nils W		1309	Apr.	6,	1910
LeBranc, Roaul			Apr.	9,	1910
Lawrella, Michael			Apr.	11,	1910
	Milk River	1359	Apr.	14,	1910
Longacre, Fred	Taber	1373	Apr.	15,	1910
Levisque, Walter		1395	Apr.	25,	1910
Lunn, Arthur B		1401	Apr.	26,	1910
Long, Jas. W			Мау	19,	1910
Lane, Lewis W		,	June	11,	1910
Long, Fred			June	14, 1,	1910 1910
Lockhart, Wm			Scpt. Sept.	6,	1910
Lorerm, John	Edmonton		Sept.	21,	1910
Lighthall, Geo. B.	Bassano		Sept.	23,	1910
Lambert, Arthur			Sept.	24,	1910
LeGear, Russell C		1543	Oct.	7,	1910
	Lethbridge	1620	Mar.	7,	1911
Labby, Alfred	La Calmette		Apr.	21,	1911
Lycan, Thos. S	Bassano		Apr.	10,	1911
Lysham, J. E			Apr.	15,	1911
Lambert, John A			Apr. Mav	24,	1911 1911
Lee, Ed. A Laughery, Jas. W			мау Мау	8, 20,	1911
Lister, Ossie	Lethbridge		мау Мау	26,	1911
Lepard, Frank	Edmonton		Aug.	11,	1911
Lake, Arch.			Aug.	22,	1911
Lee, John J	Rosemead		Aug.	24,	1911
Little, Wm. H	Lethbridge	1944	Sept.	9,	1911
Lambert, Wm. E			Oct.	24,	1911
Lewis, Gilbert B			Oct.	24,	1911
Lefort, Henry			Dec.	19,	1911
Levis, Everett E		,	Jan.	12,	1912
Lacquement, Eward C			Jan. Fob	16,	1912
Lough, Marshall			Feb. Mar.	14, 18,	1912 1912
Linton, William H	Parkland		mar. Mar.	22,	1912
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Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.			
Third Class—Continued					
Lippold, Herman	Cardston	2157	Apr.	19,	1912
Long, Charies W		2180	Apr.	23,	1912
Lippert, Jacob	Irvine	2181	Apr.	23,	1912
Loritz, Frank	Strathcona	2218	Apr.	29,	1912
Levy, Ira M		2246	May	2,	1912
Lohrman, Chris		2256	May	3,	1912
Lundh, Bernard		2306	June	14,	1912
Little, William Jno		2385	Sept.	27,	1912
Lee, William O	_	2411	Oct.	23,	1912
Lerbeckmo, Peter O	Bardo	2428	Dec.	13,	1912
Morkin, Jno	Dunbow	*39	Dec.	1,	1899
Martin, M. Z	Morinville (suspended).	*56	May	28	1900
Mitchell, Tim W	Red Def 7	*119	Feb.	7,	1901
Mather, E. M	Calgary	*133	June	6,	1901
Morden, Jacob R		*187	Dec.	18,	1901
Moore, John R		*190	Dec.	18,	1901
Munier, Wilfred		*199	Dec.	18,	1901
	Morinville		Dec.	18,	1901
Meneeiy, Wm.			Dec.	18,	1901
Mikethus, Michael	4	*210	Dec.	18,	1901
Morkeberg, D		*232 *854	Apr.	23,	1902 1905
Mooney, W. S.		*513	June Apr.	13, 18,	1905
Murray, A. A.			Apr.	18.	1904
Meunier, J. H.		1	Apr.	18,	1904
Meredith, Wilbert			Apr.	18,	1904
Mathews, Geo			Oct.	15,	1904
Morgan, Oscar			Oct.	15,	1904
Maxfield, W. H	Namao	*646	Oct.	15,	1904
Mead, Francis A	Pincher Creek	*678	Dec.	<b>3</b> 0,	1904
May, Daniel			Jan.	21,	1905
Mew, John			Mar.	24,	1905
Muir, Wm. J.			Sept.	23,	1911
Marler, Walter			Mar.	31,	1905
Mohr, John J		1	July	6, 16	1905 1905
Melnyk, Wm.		,	Sept. Sept.	16, 18.	1905
Mason, Jas. D.		1	Sept.	18,	1905
Moss, Richard			Mar.	26,	1905
Mahood, Robt. F			Apr.	11,	1906
Murray, Dan L	Bentley	105	Apr.	24,	1906
Mitchell, Jos. C	Tees	111	Apr.	25,	1906
Moritz, Henry C	Olds	146	Мау	31,	1906
	Olds		Мау	31,	1906
Morkeberg, Holger			Мау	31,	1906
Maxweil, Tim	Ciaresholm		Aug.	13,	1906
Murray, Thos. N	Medicine Hat	171	Aug.	11,	1906
Muir, Geo. A.	Morrisey		Feb.	1,	1909
Maunchaw, Aug	Strathcona		Sept.	13,	1906
Mead, Wm	Name o		Sept.	13,	1906 1906
Miller, Dick F.	Rigelifolds	,	Sept. Sept.	13, 27,	1906
Maicher, Chas.	Waterkiwin		Sept. Oct.	5,	1906
Milier, Jones P.	Deinorte	ı	May	31,	1907
Morrison, Avard L	Caigary	,	June	4,	1907
Martin, Jno. C. B	Calgary	. 1	June	4.	1907
Moody, Jas. Wm	Brocket		June	4,	1907
Morter, Chas. J	Iowalta	,	June	7,	1907
Miller, Wm. M.	TOWARCA	000 ,	o uno	.,	TVV.

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Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.		TE SSU	-
Third Class—Continued	,	<u> </u>	<u></u>		-
Morrow, Jos. W	Roundup	460	July	15,	1907
Meldrum, David (Jr.)	Raymond	466	July	15,	1907
Manning, Jas. A	Cowley	471	July	16,	1907
Munro, Mllo	Gleichen	484	Aug.	28,	1907
Martin, Chas. A	High River	487	Sept.	4,	1907
Miller, Fred C	Cooking Lake	496	Oct.	15,	1907
Munro, Fred	Innisfail	510	Oct.	22,	1 <b>9</b> 07
Morden, Jno	Lacombe	925	Mar.	30,	1 <b>9</b> 09
Malchow, G. E. A	Earlville	538	Oct.	28,	1907
Mignault, Jos. C	Calgary	579	Mar.	23,	1908 1 <b>9</b> 08
Middleton, Archie C	Nanton	583	Mar.	23,	1908
Marshall, Frank P	Lille	600 641	Apr. Apr.	8, 14,	1908
Millar, T. B.	Burnt Lake	1631	Mar.	7,	1911
Marson, Chas. H.	Medicine Hat (dup.)	735	July	15,	1908
Mitchell, Franklin A	Medicine Hat	664	Apr.	27,	1908
Miles, Jas	Vermilion	667	Apr.	27,	1908
Mark, David McK	Manville	1189	Dec.	29,	1909
Marler, Jas. T	Crossfield	683	May	1,	1908
Martin, Landis	Stettler	686	May	1,	1 <b>9</b> 08
Millar, Jno. F	Bentley	694	May	6,	1908
Munro, Alex. A	Lockhart	696	May	6,	1908
Morris, Wm. H	Wetaskiwin	698	May	6,	1908
Maurice, Frank E	Edmonton	730	May	26,	1908 1908
Maxwell, Jno. W	Lochend	731 732	June June	12, 12,	1908
Morris, Jas. W.	Canmore	734	June	29,	1908
Morton, Lewis R	Athabasca Landing	745	Aug.	6,	1908
Mott, Henry J	Red Deer	752	Sept.	2,	1908
Murray, Jas	Murray Valley	757	Sept.	8,	1908
Mortelette, H. C	Edmonton	778	Sept.	18,	1908
Masse, Louis	Legal	778	Sept.	21,	1908
Mulligan, Geo B	Bon Accord	789	Sept.	21,	1908
Miller, Jacob	Stony Plain	790	Sept.	21,	1908
Marshall, Robt. E Murphy, Edward F	Raymond Strathcona	852 875	Oct.	6,	1908 1909
Morris, Andrew	Calgary	882	Jan. Mar.	8, 1 <b>9</b> ,	1909
Mackin, John	Lethbridge	902	Mar.	24,	1909
Mitchell, Ava D	Aldersyde	935	Apr.	2,	1909
Munson, Jas. B	Reid Hill	936	Apr	2,	1909
Moore, Corey G	Macleod	954	Apr.	7,	1909
Mudiman, David L	Macleod	970	Apr.	16,	1909
Myers, James	Claresholm	955	Apr.	8,	1909
Myers, Roy C.	Claresholm	971	Apr.	16,	1909
Mulligan, Jos.	Canmore	1026	Apr.	28,	1909
Mundell, Wm. G. R  Monson, Jos	Lethbridge	1054	May	3,	1909
Miller, Jas.	Camrose	1092 1104	Sept.	7,	1909 1909
Marr, Robt.	Edmonton	1164	Sept	15, 29,	1909
Miller, Herman A.	Edmonton	1175	Oct.	27,	1909
Morris, John	Wild Horse	1177	Nov.	13,	1909
Mulrhead, Jas. W	Calgary	1210	Mar.	7,	1910
Mitchell, Wesley C	Calgary	1211	Mar.	7,	1910
Morinlngstar, Roy	Lethbridge	1229	Mar.	15,	1910
Martin, Wm. A.		1230	Mar.	15,	1910
Malchow, Fred C	Claresholm	1278	Mar.	29,	1910
	11 14 10 10 00 0	1291	Apr.	1.	1910
Mach, Jos	Camrose	1 .			
Mach, Jos.  Messmer, Jno. F.  Mildon, Wm. L.	Hastings Coulee	1292 1301	Apr. Apr.	1, 5,	1910 1910

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Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

Mayberry, Thos. W.       Warner       1363       Apr.         Mitchell, Wm.       Calgary       1386       Apr.         Miles, John       Lethbridge       1388       Apr.	14, 21, 22, 25, 17,	1910 1910 1910 1910
Mayberry, Thos. W.         Warner         1363         Apr.           Mitchell, Wm.         Calgary         1386         Apr.           Miles. John         Lethbridge         1388         Apr.	14, 21, 22, 25, 17,	1910 1910
Mayberry, Thos. W.       Warner       1363       Apr.         Mitchell, Wm.       Calgary       1386       Apr.         Miles. John       Lethbridge       1388       Apr.	14, 21, 22, 25, 17,	1910
Mitchell, Wm.       Calgary       1386       Apr.         Miles John       Lethbridge       1388       Apr.	22, 25, 17,	
Miles John Lethbridge 1388 [Apr.	25, 17,	1910
Markel Jacob F Irvine 1396 Apr.	17,	
		1910
Morley Wm. N Morningside 1405 May	q	1910
Mogridge. John Jas Copeville 1420 Julie		1910
Molton Earl Calgary 1404 Aug.		1910
Michaells, Eddle Milk River 1481 Sept.  Michaells, Eddle Calgary 1525 Sept.		1910 1910
		1910
Malcolm, Day		1910
vioses, Geo		1911
Mulr, Geo. H		1910
Mudra, Chas Frank 2081 Mar.		1912
Matheson, Murdoch R Granum	15,	1911
Musser, Angus Bassano 1054   Mar. 2	20, 1	1911
Mansell Wm Canmore 1741 Apr.		1911
Moran George I Langdon 1766 Apr.		1911
Montin Wm Sandstone 1707 Apr. 1	•	1911
		1911
		1911
Malton, John W		1911 1911
		1911
		1911
Mattison, Ficu	•	1911
Mayberry, J. R Red Deer 1855 June		1911
Mah, Sam Edmonton 1871 July		1911
Miller, Wm. G Ryley 1893 Aug. 1	L6, 1	1911
Merrit, Arza M Noble 1914 Aug. 2		1911
Milligan, John L Burdett 1920 Aug. 2		1911
Mickleson, George A   Calgary   2041   Feb. 1		1912
		1911
Morrison, Wm. V Red Deer 1930 Sept.		1911
Miller, Edward S Spring Coulee 1945 Sept.  Meldrum, John C Lethbridge 1947 Sept.		L911 L911
Meldrum, John C.       Lethbridge       1947       Sept.         Mullin, Jas.       Edmonton       1955       Sept.	•	911
		911
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	3, 1	912
Murray, William B   Magrath   2062   Mar. 1	3, 1	912
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		912
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Martin, Arthur St. Paul de Metis 2324 July 1		912
	2, 1	912
	•	912
Manning, Timothy Calgary		912
Miller, Chas. C	8, 1	912

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.			
Third Class-Continued					
Murphree, William N	Calgary	2345	July	18,	1912
Mouiton, August	Clover Bar	2359	Aug.	12,	1912
Miller, Alex	1	2363	Aug.	20,	1912
Murray, Thomas H	1	2400	Oct.	17,	1912
Miller, John	Diamond City	2401	Oct.	17,	1912
Mitcheli, Geo. Hy		4.	Oct.	19,	1912
Murray, Jas. H	Bankhead	2414	Nov.	8,	1912
Mackwood, Samuel		2419	Nov.	13,	1912
Miller, Ellis G		2429	Dec.	13,	1912
May, Albert		2433 *28	Dec. Oct.	13, 29,	1912 1899
McDonald, Findlay	l	*86	Oct.	23,	1900
McLellan, Jno		*93	Nov.	15,	1900
McLeod, M. J	I	*94	Nov.	15,	1900
McKellar, Jno	Fort Saskatchewan	*95	Nov.	15,	1900
McKinley, Murdock	Stony Plain	*203	Dec.	18,	1901
McLean, Archibaid	Lethbridge	*250	Aug.	18,	1902
McLean, Aiix. M		*347	Mar.	9,	1902
McGarry, Fred		*355	Apr.	24,	1903
McDonaid, Wm		*369	May	13,	1903
McConneli, Jas. R	Red Deer	*372 *539	May	13,	1903
McLean, Jas. A	Star Edmonton	*540	Apr.	18,	1904
McFayden, Jno. R	Strathcona	*553	Apr. June	18, 3,	1904 1904
McDonald, Malcolm	Mountain Hiil		Sept.	14,	1904
McLeod. D. J. W	Strathcona	\	Sept.	11,	1908
McKenzie, Dan	Lacombe		Mar.	24,	1905
McInroy, Paul	Edwell	*773	Mar.	24,	1905
McEachern, Malcolm	Leduc		Mar.	27,	1905
McCathy, Jas.	Calmar	_ :	Mar.	27,	1905
McPhail, Jno	Bellevue		Sept.	16,	1905
McDonald, Dan	Morinville	1	Mar. Mar.	16,	1906
McCallum, Albert W	Beaver Lake	!	Apr.	16, 18,	1906 190 <b>6</b>
McAnnaly, Peter J.	Crossfield		Мау	31,	1906
McLean, Wm. Jno	Hillcrest	\	Aug.	13,	1906
McPherson, Jas. P	Bentley		May	23,	1910
McNutt, Watson	Medicine Hat	262	Apr.	6,	1907
McCune, Oscar	Red Deer	0 1	May	20,	1907
McGregor, Wm. W.	Blackfalds		Мау	20,	1907
McDonell, Archie A	Calgary		June	4,	1907
McIvor, David S	Marwayne		June June	14,	1907
McAlister, Donald C	Lethbridge	400-	Aug.	14, 20,	1907 1909
McDonald, Geo. A.	Pincher Creek		July	20, 15,	1909
McAllister, Alfred	Claresholm		July	15,	1907
McGhan, Silas S	Clover Bar		Oct.	15,	1907
McLean, Laughlin	Innisfail	512	Oct.	22,	1907
McGuire, Thos	Lacombe		Oct.	28,	1907
McLean, Garnet W	Calgary		fan.	20,	1908
McPhee, Jno.	Edmonton		Apr.	2,	1908
McDonald, Hugh D.	Frank		Apr.	8,	1908
McNarland, Robt. Jas McCutcheon, R. H	Granum Pincher Creek	004	Apr.	8,	1908
McRae, Duncan A.	Taber	!	Apr. Apr.	· 9,	1908
McRoberts, And.	Pine Lake		Apr.	9, 14,	1908 1908
McDougall, Wm.	Mewassln		Apr.	22,	1908
McIvor, Wm.	Marwayne		Apr.	27,	1908
McDermld, Alex. M	Elkwater	703	May	14,	1908
McIntosh, Duncan D	Three Hills		ept.	22,	1908
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<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

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NAME	ADDRESS	NO. OF CERT.		TE SSU	
Third Class-Continued					
McCall, Samuel D	Pincher Creek	932	Apr.	1,	1909
McMillan, Hugh A	Edmonton	943	Apr.	3,	1909
McPherson, Jabez B	Bentley	946	Apr.	6,	1909
McKenzie, John A	Edmonton	1067	May	21,	1909
McPherson, Adam	Red Deer	1089	Apr.	24,	1909
McKenzie, Geo	Lethbridge	1106	Sept.	15,	1909
McKenzie, Wesley J	Brant	1537 1457	Sept.	28, 8,	1910 1910
McCausland, Chas. A McCallum, Jos	Beaver Lake	1163	Aug. Sept.	29,	1909
McAlister, Donald C	Dlamond City	1228	Mar.	15,	1910
McLaughlin, Lorne	Cardlff	1310	Apr.	8,	1910
McLaughlin, Wm. E	Okotoks	1329	Apr.	8,	1910
McGibbon, Robt F	Taber	1374	Oct.	15,	1910
McCauley, Chas	New Dayton	1426	June	11,	1910
McBlane, Donald	Cowley	1427	June	11,	1910
McPherson, Jno	Calgary	2209	Apr.	26,	1912
McTlghe, Frank B	Lethbridge	1437	July	8,	1910
McKennan, Felix	Cochrane	1449	July	15,	1910
McKnight, Dan	Calgary	1454	July	29,	1910
McPherson, Alec	Blairmore		Aug.	31,	1910
McLeod, John B	Leslleville	1516	Sept. Sept.	21, 21,	1910 1910
McInroy, Jno. C	Innistali	1517 1555	Oct.	17,	1910
McGlenn, Lester S	Lethbridge	1569	Oct.	20,	1910
McDonald, Wm. F	Lethbridge	1570	Oct.	19,	1910
McAuley, Dan	Kipp	1621	Mar.	7,	1911
MacKay, Duncan	Sandstone	1655	Mar.	20,	1911
McLean, Jas	Edmonton	1667	Mar.	25,	1911
McMullin, Alp. L	Raymond	1682	Mar.	28,	1911
McLeod, Angus		1721	Apr.	5,	1911
McLaughlin, Jas. M	Bassano	1742	Apr.	10,	1911
McLean, Hugh	Cummlngs	1771	Apr.	21,	1911
McGlen, Robt. M	Berseker	1807	Мау	6,	1911
McDermld, Chas. C	Allx	1833 1854	May June	26, 17,	1911 1911
McKerricher, W. R.		1864	June	20.	1911
McCrae, Ern. A		1865	June	20,	1911
McLaughlin, Elmer	Edmonton	1896	Aug.	18,	1911
McClennand, Allan	Fishburn	1946	Sept.	9,	1911
McCarty, Jas. S			Nov.	16,	1911
McLeod, Fraser	Diamond City	2355	July	19,	1912
McAlduff, Edward			Dec.	8,	1911
	Red Willow		Feb.	14,	1912
McCutcheon, Wm	Strathcona		Feb.	23,	1912
McGinnis, Jno. W.	Lathbridge		Feb.	23,	1912
McDonald, Robt. A.	Lethbridge		Mar.	13,	1912 1912
McMahon, James F	Pleasington		Apr. Apr.	2,	1912
McDaniel, Hugh C	Whitla		Apr. Apr.	10, 23,	1912
McInnls, William	Cummings		Apr.	29,	1912
McDonald, Wm. A	Walnwright		Apr.	29,	1912
McRitchie, Murray	Coleman		May	18,	1912
McMillen, Allan D	Edmonton		May	23,	1912
McClintock, Warren	St. Albert		June	17,	1912
McDonald, Chas. E	Edmonton	3	June	17,	1912
MacAuley, William	Dt. Paul de Metis		July	16,	1912
McPhee, Murdoch	Colgany	1	July	16,	1912
McDevitt, Wm. J.	Edmonton		Aug.	20,	1912
McDonald, Angus	Edmonton	2386 2387	Sept. Sept.	27, 27,	1912 1912
	was granted by North-V				1012

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.			
Third Class—Continued					
McTavish, Hugh R	Ft. Saskatchewan	2413	Nov.	8,	1912
Nelson, Frank	Wetaskiwin	*60	May	30,	1900
Nichol, David	Innisfail	*191	Dec.	18,	1901
Noyes, Dan. E	St. Albert	*197	Dec.	18,	1901
Nichols, Jas. J	Edmonton	*358	May	13,	1903
Niven, Jno	Lethbridge	*451	Oct.	6,	1903
Nehr, Win. A	Edmonton	75	Mar.	26,	1906 1906
Noel, Kenneth E	Edmonton	245 113	Sept. Apr.	28, 25,	1906
Nelson, Wilfred	Calgary	119	Apr.	30,	1906
Nelson, Arthur W	Edmonton	132	May	10,	1906
Neeb, Louis	Edmonton	161	June	5,	1906
Nichols, Alex. J	Edmonton		Sept.	13,	1906
Neis, Geo. M	Lamerton	228	Sept.	20,	1906
Norlie, Hackon, C	Edmonton	501	Oct.	15,	1907
Nixon, Robt. J	Crossfield	524	Oct.	24,	1907
Nels, Philip	Lamerton	530	Oct.	24,	1907
Neilson, Geo		540	Oct.	28,	1907
Nadeau, T. Eudore		675	Apr.	27,	1908
Nichols, Wm. R		729	Мау	26,	1908
Neufeld, Abraham J	Neopolls		Sept.	11,	1908
Neufeld, Peter W	Noelton		Sept.	11,	1908
Neate, Harry	Edmonton		Sept.	18,	1908
Newsome, Wm. H	Calgary	\	Sept.	22,	1908
Norgaard, Peter J Norton, Paul	Calgary		Sept. Oct.	22, 2,	1908 1908
Nemsgern, Jno	Reld Hlll	1	Oct.	22, 22,	1908
Neville, Fred R	Claresholm		Oct.	6,	1908
Norrie, Jas	Medicine Hat		Мау	1,	1909
Nelson, Peter I		'	Sept.	7,	1909
Naylor, Edward H	Morlnville		Sept.	29,	1909
Nelson, Chrest	Medicine Hat		Dec.	17,	1909
Nicholson, John M	Lundbreck	1253	Mar.	21,	<b>19</b> 10
Neil, N. Walter	Coleman	1471	Aug.	31,	1910
Needham, Harry H		1606	Jan.	23,	1911
Noble, William Jno		1656	Mar.	20,	1911
Nelson, Willard T		1722	Apr.	5,	1911
Nichols, John D		1	Oct.	24,	1911
Nelson, Joseph			Mar.	28,	1912
Noland, Lars	Cardston	1	Apr.	2,	1912
Nelson, Charles F Nelson, Ernest W		1	Apr.	10,	1912
Nothwang, Geo. K.			Apr.	26,	1912
Neufeld, Abram W		1	Apr. May	29, <b>3</b> ,	1912 1912
Neggerson, Edward			мау Мау	22,	1912
Nelson, Earl Alex.			Aug.	20,	1912
Ottewell, Richard P	Edmonton	*27	Oct.	9,	1899
Omand, Jno			Apr.	14,	1904
Olsen, H. B	Ellerslie		Apr.	18,	1904
Oliver, Wesley N	Wostok		Apr.	14,	1905
Olsen, Gilbert E	Star		Aug.	8,	1912
Ottewell, Albert	Clover Bar		Mar.	26,	1906
O'Dell, Geo. W	High River	733	June	22,	<b>19</b> 08
Orford, Andrew B	Macleod		Jul <b>y</b>	15,	1907
Oberg, Knute L	Strathcona	1	Oct.	15,	1907
Oliver, Peter C	Calgary		Jan.	20,	1908
Oakes, Louis D	Claresholm		Mar.	23,	1908
O'Connor, Jno	Mossleigh	568	Mar.	23,	1908

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.		TE SSU	
Third Class—Continued					
Oler, Geo. Jr	Stlrling	602	Apr.	8,	1908
Orser, Jno. R	Tristram		Apr.	9,	1910
O'Reilly, C	Bells Hill	784	Sept.	18,	1908
Olson, Matz	Wilton Park	817	Sept.	28,	1908
Oster, Carl	Good Hope	818	Sept.	28,	1908
Orr, Alf. E	Irvine	854	Oct.	6,	1908
Osborne, Homer	Taber	855	Oct.	6,	1908
Orser, Harry	Calgary	883	Mar.	19,	1909
Olsen, Elmer A	Prairie View	891	Mar.	24,	1909
Ostby, Anton	Strathmore	1027	Apr.	28,	1909
O'Brien, Roy	Raymond	1107	Sept.	15,	1909
Orr. Joshua	Irvine		Sept.	28,	1909
Ostlund, Gustav	Stirling	1231	Mar.	15,	1910
O'Connell, Patrick B	Raymond	1317	Apr.	7,	1910
Ohlson, Carl L	Millarville		May	19,	1910
Ohrn, Carl H	Ohrnville	1557	Oct.	17,	1910
Omang, Carl A	Stettler	1675	Mar.	24,	1911
Ostby, Charles	Mik River	1688 1699	Mar. Mar.	29,	1911 1911
Ormson, Joseph J	Ryley	2280	May.	31, 22,	1912
Orr, Fred	Canmore		Mar.	31,	1911
Oliver, Robt. T	Grassy Lake		Apr.	10,	1911
O'Connor, Pat. J	Carlstadt		Мау	20,	1911
Odell, Ed.	Clover Bar	1894	Aug.	16,	1911
Ottewell, Arthur J	Burdett	1915	Aug.	24,	1911
Olsen, J. Gilbert	Coleman		Jan.	16,	1912
Olson, Albert Jos	Coaldale	2064	Mar.	13,	1912
O'Danlels, John W O'Rourke, John O	Irma	2104	Mar.	25,	1912
Olberg, Christian	Holden	2199	Apr.	24,	1912
O'Neil, Thomas A	Mile 43	2238	Apr.	30,	1912
Ottewell, Wm. R	Clover Bar	2264	May	8,	1912
Olson, Frank Oscar	Calgary	2346	July	18,	1912
Oxford, Stephen	Edmonton	2388	Sept.	27,	191 <b>2</b>
Oaks, John W	Edmonton	2430	Dec.	13,	1912
Pierce, Geo. J	Red Deer		Mar.	8,	1900
Pearce, Jas	Edmonton	4	Oct.	23,	1900
Putman, Albert E	Edmonton		Dec.	18,	1901
Powell, Jas. A	Edmonton		Dec.	18,	1901
Pearce, Wm	Edmonton	*229	Apr.	23,	1902
Pimm, Jno	Lethbridge	,	Aug.	18,	1902
Pullshly, Wm	Star	1.	June	23,	1903
Pullesen, Peter	Calgary	*492 *546	Mar.	14,	1904 1904
Piper, F. E	Red Deer		Apr. June	18, 6,	1905
Porter, Gerard A	Red Deer (dup.) Wetasklwin		Mar.	27,	1905
Peterson, Robt. F	Raymond	1 7 7 1	Sept.	16,	1905
Plpegrass, Fred'k	Raymond		Dec.	29,	1905
Pearson, Herbert S	Wetaskiwln			••	1906
Pefluger, Geo	Claresholm		Apr. Aug.	20, 13,	1906
Pitmann, Wm. T.	Wetaskiwin	,	May	15.	1907
Pratt, Arthur W	Three Hills	,	Мау	23,	1907
Patterson, Johnston	Strathcona		May	23,	1907
Pyle, Joshua	Langdon		June	4,	1907
Peterson, Alfred L			June	14.	1907
Phillips, Fred H	Frank		July	15,	1907
Pylypow, Wasyl	Star	1	Oct.	15,	1907
Prehn, Emil N	Strome		Oct.	15,	1907
Peterson, Fred. A	Wetaskiwin	529	Oct.	28,	1907
Page, Sam. Jas		532	Oct.	28,	1907

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

		CERT.	DATE		<b>E</b>
Third Class-Continued	; ;;				
Pethick, Roy W	Okotoks	1331	Apr.	8,	1910
Pozin, Otto E	Claresholm	577	Mar.	23,	1908
Peat, Geo. A	Lethbridge	611	Apr.	8,	1908
Power, Eugene	Lethbridge	615	Apr.	8,	1908
Peat, Jas. T	Lethbridge	619	Apr.	8,	1908
Phillips, Walter I	Magrath	620 621	Apr.	9,	1908
Peters, Andy	Evarts	638	Apr. Apr.	9, 14,	1908 1908
Peterson, Anton	Innisfail	642	Apr.	14,	1908
Parker, Ed. W	Harmattan		Apr.	14,	1908
Putnam, Orlean E	Edmonton		Apr.	27,	1908
Pfitzeumier, Herman	Stettler	687	May	1,	1908
Pail, Jos., Jr.	Prague	717	May	18,	1908
Phillips, Wm. J.	Clover Bar	725	May	18,	1908
Papineau, Francis C	Battle Lake	727	Мау	18,	1908
Parker, David L	Penhold		Sept.	3,	1908
Parmelee, J. M	Bluff Centre	1.	Sept.	14,	1908
Park, Hugh A	Placington		Sept	18,	1908
Parsons, Harry	Okotoks	/	Mar.	15,	1910
Philpot, Jos	Bawlf	!	Sept.	25,	1908
Podgarmy, Mike	Leduc	'	Sept.	28,	1908
Porter, Wm	Stavely	,	Oct.	2,	1908
Peak Jos. H	Pokahasset	1	Nov.	26,	1908
Payzant, Jno. M	Strathcona	!	Dec. Mar.	23,	1908
Paul, Karl	Medicine Hat		Mar.	4, 26	1909 1909
Prout, Thos. R	Hicksburg	1	Apr.	26, 2,	1909
Peterson, Martin O	Content		Apr.	25,	1909
Passmore, Thos. A	Taber		Apr.	25,	1909
Pickering, Geo	Canmore	4000 1	Apr.	28,	1909
Pierce, Alfred	Lamont		Apr.	29,	1909
Parsons, Henry	Lac Ste. Anne	1041	Apr.	29,	1909
Purmal, Jacob	Medicine Hat		Мау	1,	1909
Paget, Thos. J	Claresholm		Sept.	21,	1909
Pallot, Harold E	Edmonton		Mar.	7,	1910
Powell, John	Lucky Strike		Mar.	7,	1910
Paulsons, Paul	Lethbridge		Mar.	15,	1910
Pattinson, Geo	Frank	1	Mar.	21,	1910
Parkin, David	Macleod		Mar. Apr.	28,	1910
Piepgras, Valdemar	Raymond	4000	Apr.	7, 8,	1910 1910
Pearson, Richard V	Airdrie		Apr.	1,	1910
Puntus, Frank	Tofield	40.4	Apr.	13.	1910
Parker, John W.	Bow Island		Apr.	19,	1910
Perks, Chas.	High River	1	Apr.	19,	1910
Phillips, Wm	Calgary	:	July	15,	1910
Purcell, Frank	Taber		Sept.	21,	1910
Peterson, Emil	Heatherbrae		Sept.	28,	1910
Parker, Ralph A	Lewisville		Oct.	7,	1910
Potter, John	Royton	1533	Oct.	17,	1910
Pearce, Gilbert E	Edmonton	1561	Oct.	19,	1910
	Pine Creek	,	Jan.	20,	1911
	Edmonton	L .	Mar.	22,	1911
	Warner	,	Mar.	29,	1911
	Lost Lake		Mar.	31,	1911
	Hand Hills		Apr.	10,	1911
	Medicine Hat	1757	Apr.	15,	1911
	Madiaina Mat	1750 1.	A 202	15	
Parnell, Fred. R	Medicine Hat		Apr. Apr.	15, 21,	1911 1911

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

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· NAME	ADDRESS	NO. OF CERT.	1	ATE ISSU	
Third Class-Continued					
Pomarleau, Louis	Burdett	1857	June	20,	1911
Potter, Thomas	Raymond	1866	June		1911
Palmer, Henry A	Calgary	1902	Aug.	22,	1911
Pradon, Jean M	Strathcona	1921	Aug.	25,	1911
Peterson, Peter	Warner	. 9	Sept.	9,	<b>1</b> 91 <b>1</b>
Parro, Louis	Lacombe		Nov.	11,	1911
Pract, Fred	Lethbridge		Nov.	17,	1911
Proughton, Donald G Palar, Henry			Dec.	12,	1911
Perdue, Nelson	Warner		Mar.	13,	1912
Pittman, John W	Warner	0.4.4.4	Mar.	25,	1912 1912
Pease, Fred	Milk River	0	Apr.	16, 16,	1912
Pratt, Fred	Camrose		Apr. Apr.	20,	1912
Porter, Charles D	Medicine Hat	0	Apr.	23,	1912
Putnam, Phlletus	Claresholm		May	2,	1912
Patton, Jno. P	Blairmore		May	18,	1912
Parkening, Amil	Tilley	!	July	18,	1912
Peterson, Peter	Edmonton	2366	Aug.	27,	1912
Pettley, Daniel R	Taber	2370	Sept.	17,	1912
Pinckney, Fred	Medicine Hat		Sept.	17,	1912
	Calgary		Sept.	19,	1912
	Wetasklwin	l	Nov.	12,	1912
	Edmonton	1	Dec.	13,	1912
Tamer, Laymond IV.	Calgary	2439 1	Dec.	18,	1912
Quigley, Thos	Cochrane	546	vov.	22,	1907
Quigley, Jas. S	Cochrane		Dec.	31,	1908
Quinn, Wm. B	Edmonton		Dec.	27,	1909
Quick, Elbert K.	Sundial	1237	Iar.	15,	1910
Quesseth, Geo. O	Meeting Creek	1435 J	uly	6,	1910
Quinlan, John A	Hillcrest	. 1	Лаг.	18,	1912
guich, Iveis	Whitla	2188 A	lpr.	23,	1912
Robinson, Jno	Edmonton	*26	ct.	9,	1899
Rutherford, Jno	Medicine Hat		ct.	17,	1910
Ross, Thos. G.	Poplar Lake		lov.	15,	1900
Rattray, Archle B.	Edmonton	*108 I	ec.	15,	1900
	Bon Accord	*301	ct.	2,	1902
Ryan, James	Wetaskiwin		ct.	22,	1902
Rivet, Arthur	Lacombe	!-	pr.	18,	1904
Ramsay, Jas.	Morinville		Iay	26,	1904
	Coleman	?	et.	27,	1905
Rath, Edw. L.	Strathcona		ept.	18,	1905
Read, Edgar A.	Manfred	1	pr.	11,	1906
Reese, Harry E.	Wetaskiwin		pr. Iay	20, 10,	1906 1906
Roulston, Robt.	Bowden		fay	31,	1906
Trongarge, WIII.	Vegreville		ept.	13,	1906
Desired 1	Duhamel	(·-	pr.	18,	1911
Rockstad, Abraham	Wetaskiwln		ct.	5,	1906
David, Ernest W	Conjuring Creek		<b>Iay</b>	15,	1907
Troyte, Will. H	Calgary		une	4,	1907
Desired, Morgan	Vegreville	/	une		1907
2.003, 0110, G	gmartan		une		1907
Robinson, N. J	De winton	•	une	19,	1907
Rydberg, Emil W	andhead	(	une	19,	1907
Rice, Wm.	Lundbreck		ar.		1909
Rear, Chas. W.	Mayton i		ct.		1907
Raymer, Ollver	dayton	- · · · · · · · · · · · · · · · · · · ·	pr.		1908
*Indicates Certificate w	as granted by North W.	653 A	p <b>r.</b>	15,	1908

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

Rix, Percy H.       Wetasklwin       728       May       2         Rattray, Alex.       Dog Pound       764       Sept.       1	6, 8, 6, 1,	1908 1908 1908 1908
Ramsey, Raiph H.       Vegreville       722       May       1         Rix, Percy H.       Wetasklwin       728       May       2         Rattray, Alex.       Dog Pound       764       Sept.       1	8, 6, 1,	1908 1908 1908
Ramsey, Raiph H.       Vegreville       722       May       1         Rix, Percy H.       Wetasklwin       728       May       2         Rattray, Alex.       Dog Pound       764       Sept.       1	8, 6, 1,	1908 1908 1908
Rix, Percy H.       Wetasklwin       728       May       2         Rattray, Alex.       Dog Pound       764       Sept. 1	6, 1, 24,	1908 1908
Rattray, Alex Dog Pound 764 Sept. 1	1, 24,	1908
	24,	
rade, one. in Eradis ove seek.		1908
· · · · · · · · · · · · · · · · · · ·		1908
	2,	1908
	-	1908
	2, 2,	1908
Rills, Wilson, H	6,	1908
	26,	1904
	19,	1909
	24,	1909
	3,	1909
	- '	1909
	6, l6,	1909
	20,	1909
	3,	1909
	4,	1909
	26,	1909
	21,	1909
	25,	1909
Reimer, Henry H Neapolis 1200 Mar.	4,	1910
	L5,	1908
	15,	1910
	15,	1910
	29,	1910
	30,	1910
Reed, David	1,	1910
	25,	1910
	L 4,	1910
	L4,	1910
Rhimes, Robt Calgary	8,	1910
7714	15,	1910
	24,	1910
	23,	1910
	24,	1910
	L3,	1911
	L4,	1911
TO 48 19 29 3	29,	1911
	0,	1911
	4,	1911
1 -	34,	1911
	24,	1911
	18,	1911
	26,	1911
To	20,	1911
Duels Assistant D	19,	1911
	34,	1911
Richfield, Floyd I Macleod 1917 Aug.	14,	1911
Rice, Martin Grassy Lake 1949 Sept.	9,	1911
Radolff, Adolff Edmonton 1965 Oct.	8,	1911
	L <b>4</b> ,	1912
	3,	1912
The second secon	8,	1912
	22,	1912
The same of the sa	5,	1912
Ramsay, Robert Strathcona 2116 Apr.	1,	1912
Rasmussen, Arnold Standard 2134 Apr.	4,	1912
Reynolds, Geo. P Ferintosh	0,	1912

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	S NO. OF DATE CERT. ISSU			
Third Class-Continued					
Roman, Ned	Thelma	2184	Apr.	23,	1912
Reed, Guy	Irma	2200	Apr.	24,	1912
Ross, Wm. Hope	Calgary	2211	Apr.	26,	1912
Roberts, John	Calgary	2212	Apr.	26,	1912
Rowell, James	Calgary	2213	Apr.	26,	1912
Rizzuto, Thomas	Edmonton	2221	Apr.	29,	1912
Reedholm, Victor		2237	Apr.	30,	1913
Ross, Robert McKay	Innisfail	2260 2281	May	3, 22,	1912 1912
Robinson, Miles H	Calgary	2291	Мау Мау	29,	191
Roberts, David O	Stratheona	2292	May	29,	1912
Rhodes, Edgar	Calgary		June	11,	1912
Rich, Lewis B	Brocket		June	14,	1912
Ritchie, John R	Atha. Landing		June	28,	1912
Robin, Victor E	Edson	2378	Sept.	20,	1912
Robinson, Elwin D	St. Albert	2379	Sept.	20,	1912
Rimmer, George	Calgary	2440	Dec.	18,	1912
Stadelbauer, Simon	Spruce Grove	*4	Sept.	18,	1899
Stewart, Thos. H		- 1	Oct.	9,	1899
Smith, Wm. F			Nov.	28,	1899
Shaw, Jno. Y	Midnapore		Dec.	1,	1899
Saunders, Elias T	Lethbridge		Mar.	23,	1900 1900
Snider, Jno. B	Okotoks		July Nov.	19, 15,	1900
Schlegel, Frank	Duhamel	9.	Jan.	26,	1901
Stewart, Archie	Edmonton	1	Sept.	7,	1901
Stulz, Frank	St. Albert		Dec.	18,	1901
Staffles, Jos			Nov.	15,	1900
Simpson, Robt. N			Dec.	18,	1901
Smith, Sam. W	Leduc	*228	Apr.	23,	1902
Still, Wm		· ·	${\operatorname{Dec}}.$	18,	1902
Stewart, Jas. A	Beaver Lake	1	Dec.	18,	1902
Shields, Wm. K	Strathcona		Мау	13,	1903
Smith, Larent E			July	13,	1904
Schatz, Robt.	Strathcona	· ·	Oct.	15,	1904
Swift, W. L			Oct. May	15,	1904 1906
Swingle, Walter A.	- 1	1	Mar.	24,	1905
Scott, Geo. W		1	Mar.	24,	1905
Spannel, Jno.	Leduc		Mar.	27,	1905
Scott, Sam R			Mar.	28,	1905
Stafford, Jno		1	Apr.	14,	1905
Short, Walker	Mewassin		May	13,	1905
Schulli, Angelo		1453	Aug.	25,	1910
Skouson, Z. N		21	Sept.	16,	1905
Skouson, Peter N			Sept.	16,	1905
Sherwood, L. H	Beaumont		Sept.	16,	1905
Swedfeger, Amos	Leduc		Sept.	18,	1905
Svarich, Peter	Kolomea	,	Mar.	26,	1906
Schroeder, Ed. H	Edmonton		Mar. Apr.	26, 30,	1906 1906
Sherlin, Adam	Red Deer		Mar.	30, 4,	1906
Smith, Chas. W	Foreman		May	10,	1900
Stephenson, Jas. McC	Innisfail		Мау	31,	1906
Speakman, Alfred	Penhold	1	May	31,	1906
Sanders, T. Aron	Cardston		Aug.	11,	1906
Stephens, Jas	Frank		Aug.	13,	1906
Stannk, Isadore	Frank		Aug.	13,	1906
Stillman, Geo. F	Spring Point	181	Aug.	13,	1906

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

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NAME	ADDRESS	NO. OF CERT.					
Third Class—Continued			!				
Stuckney. Richard	Pincher Creek	185	Aug.	13,	1906		
Scribner, Jos		190	Aug.	13,	1906		
Smith, Jno. H		195	Aug.	13,	1906		
Stevens, H. E		202	Aug.	13,	1906		
Smith, Davld H	Calgary	206	Aug.	25,	1906		
Somerset, Robt. N		210	Sept.	13,	1906		
Smith, Jno		240	Sept.	27,	1906		
Stevens, Harry L		211	Sept.	13,	1906		
Small, Jesse J	Didsbury	243	Sept.	26,	1906		
Scarth, Walter		269	Apr.	29,	1906		
Santrock, J. M	Edmonton	269	Apr.	29,	1907 1907		
Smith, Chas. A.	Red Deer	283 285	Мау Мау	15, 15,	1907		
Smith, Sam. T.	Leslieville	287	May	20,	1907		
Schmidt, Henry W.	Red Deer	288	May	20,	1907		
Salzl, Rudolph	Morinville		May	23,	1907		
Swingle, Gala R	Didsbury	310	May	29,	1907		
Scott, Wm	Three Hills	321	May	29,	1907		
Stagg, Jno. C	Calgary	805	Sept	22,	1908		
Stearns, Chas. A	Carstairs	356	June	4,	1907		
Siddall, Wm. M	Neapolis	360	June	4,	1907		
Saunders, Abraham	Lacombe	372	June	7,	1907		
Stevens, Clostln H	Erskine	378	June	7,	1907		
Swan, Jno.	Wessington	379	June	7,	1907		
Scovile, Wm. A.	Earling	413	June	14,	1907		
Schattschneider, Herman Sinclair, Donald	Ellerslle	415	June	14,	1907		
Sallendach, Robt.	Cayley	422 427	June June	19,	1907 1907		
Sparrow, Jas. W.	Lethbridge	440	June	19, 20,	1907		
Stuenkel, Jas. F.	Claresholm	452	July	15.	1907		
Svean, Ole	Claresholm	483	Aug.	13,	1907		
Salmon, Jno. F.	Raymond	458	July	15.	1907		
Spencer, Jno. H.	Medicine Hat	480	July	24,	1907		
Somerset, Thos. B.	Edmonton	494	Oct.	15,	1907		
Santrock, Harvey S	Edmonton	498	Oct.	15,	1907		
Skolitzky, Jno. J.	Calgary	520	Oct.	24,	1907		
Spreeman, Allen	Didsbury	522	Oct.	24,	1907		
Skirkey, Jno. W. Simmonds, Henry	Lacombe	534	Oct.	28,	1907		
Stanworth, Stephen	Banff	547	Nov.	26,	1907		
St. George, Stephen	Bankhead	549	Dec.	5,	1907		
Schroeder, Waldemer	Macleod	607 604	Apr. Apr.	8,	1908 1908		
Simpson, David A.	Macleod	622	Apr.	8, 9,	1908		
Sorenson, Willard	Leavitt	629	Apr.	9,	1908		
Speignt, Frank	Red Deer	637	Apr.	14,	1908		
Sawatzky, Bernard D	Didahuez	650	Apr.	15,	1908		
Stater, Alfred	Modialno Hat	661	Apr.	27,	1908		
Saunders, Wallace	Conjuring Creek	674	Apr.	27,			
Talvey N	Innicfron	679	Apr.	27,	1908		
Scoonover, Frank	Content	688	Мау	1,	1908		
Story, Hillard M	Talbot		May	6,	1908		
Stinson, Fred	Hastings Coulee	706	May	18,	1908		
Snyder, Jacob F.	Vegreville	723	May	18,	1908		
Sanborn, Francis A.	Magrath	749	Aug.	26,	1908		
Stephen, J. (7.	Innisfail	758	Sept.	8,	1908		
Sherriel, David	Edmonton	780	Sept.	18,	1908		
Shandro, Andrew S	Shandro	821	Sept.	21,	1908		
Stafford, Geo. F. :	Plncher Creek	822	Sept.	28,	1908		
Statiord, Geo. F.	Pincher Creek	858	Oct.	6,	1908		

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.		TE SSU	
Third Class—Continued					
Smith, Anthony A	Knee Hill	889	Mar.	20,	1909
Steeves, Lorne W	Lethbridge	894	Mar.	24,	1909
Schwartz, Chas	Lille	921	Mar.	30,	1909
Suitor, Wm	Gladys	938	Apr.	2,	1909
Stroud, W. D	Crossfield	948	Apr.	6,	1909
States, John G	Carstairs				
Smedstad, John	Claresholm	949	Apr.	6,	1909
Schumers, Louis	Willing	973	Apr.	16,	1909
Stern, Fred	Bawif	992 1002	Apr.	20,	1909
Stenberg, Fred Snyder, Chas. G	Calgary	1002	Apr. Apr.	22, 22,	1909 1909
Scott, Geo. T	Gleichen	1028	Apr.	28,	1909
Scarr, Jos. A.	Bankhead	1029	Apr.	28,	1909
Sampert, Julius	Bruderheim	1342	Apr.	11,	1910
Scott, Fred	Strathcona	1042	Apr.	29,	1909
Schaumleffel, John	Lloydminster	1068	May	21,	1909
Stein, Philip	Lethbridge	1069	May	21,	1909
Stubbs, Albert W	Medicine Hat	,	Мау	26,	1909
Scarfe, Wm. H. T.	Innisfail	1082	June	18,	1909
Sheppard, Frank H	Wetaskiwin	1090	Aug.	24,	1909
Samis, Chas	Caigary	1	Sept.	7,	1909
Simon, Herbert	Thigh Hill	,	Sept. Sept.	21, 21,	1909 1909
	Calgary		Sept.	21,	1909
	Cardston		Sept.	24,	1909
	Kitscoty		Sept.	25,	1909
	Edmonton		Sept.	29,	1909
	Coaldaie	1242	Mar.	15,	1910
	Lethbridge		Mar.	15,	1910
Schinnour, Gustav.	Grassy Lake		Mar.	15,	1910
	Pincher Creek	. !	Mar.	21,	1910
	Macieod		Mar.	28,	1910
	Lacombe		Apr. Apr.	1, 6,	1910 1910
	Edmonton	t	мау	16,	1910
	Caigary		Apr.	11,	1910
Steven, Robt. T	Strathcona		Apr.	13,	1910
	Edmonton		Apr.	13,	1910
	Lethbridge		Apr.	14,	1910
	Langdon		Apr.	21,	1910
Spencer, Geo	Calgary	1	Apr.	28,	1910
	Chauvin		Мау	17,	1910
Silver, John A	Lethbridge		Мау	21,	1910
	Caigary	1	June July	14,	1910 1910
	Calgary	- · · · · · · · · · · · · · · · · · · ·	Aug.	8, 4,	1910
Selwood, Wm. H.	Welsdale		Aug.	24,	1910
Scott, Michael D	Cayley		Sept.	6,	1910
Sand, Oscar L	Dina	. 1	Sept.	21,	1910
Stewart, Wm. A	Gilpin		Sept.	21,	1910
Spencer, Thos. E	Wetaskiwin		Oct.	7,	1910
Shantz, Alson S	Didsbury		Oct.	17,	1910
Stobbs, Henry	Medicine Hat		Oct.	20,	1910
	Calgary	_ : !	Oct.	20,	1910
Steeves, Robert	Taber		Apr.	19,	1912
Steeves, Robert	Cleverviile		Oct. May	3, 26,	1910 1911
Steeves, Robert					TOTT
Snyder, Amasa	Edmonton	- 1			
Snyder, Amasa St. Peter, Moses Synder, Clarence E.	Edmonton	1607	Jan. Mar.	23, 15,	1911 1911

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	1	TE SSU	
Third Class—Continued					
Stilling, Samuel K	Three Hills	1658	Mar.	20,	1911
Sergeant, Ed. D	Calgary	1659	Mar.	20,	1911
Saunders, Chas. O		1660	Mar.	20,	1911
Stanley, Sans. E	Calgary	1661	Mar.	20,	1911
Store, William	Calgary	1662	Mar.	20,	1911
Sheardown, Henry	Lorraine	1676	Mar.	24,	1911
Solie, Halbert L	Warner	1691	Mar.	29,	1911
Sweet, Charles	Grassy Lake	1707	Mar.	31,	1911
Smyrick, Jos	Grassy Lake	1708	Mar.	31,	1911
Stephens, S. E	Ponoka	1723	Apr.	5,	1911
Skallin, Olaf	Pretty Hill	1724	Apr.	5,	1911
Shernak, Chas. J	Camrose	1725	Apr.	5,	1911
Scott, John S.	Bashaw	1726	Apr.	5,	1911
Seward, Gale	Strome	1727	Apr.	5,	1911
Shields, David W	Carlstadt	1747	Apr.	10,	1911
Schroeder, Alex	Beaver Hills	1773	Apr.	21,	1911
Smith, Thomas M	Edmonton	1774	Apr.	21,	1911
Smith, J. Edgar	Noble	1794	Apr.	24,	1911
Schrieber, John	Taber	1793	Apr.	24,	1911
Stephens, Samuel	Carmangay	1799 1808	Apr. May	26, 6,	1911 1911
Soetje, Henry	Chinook	1824	May	20,	1911
Smith, Albert A	Magrath	1839	May	26,	1911
Spangrud, Emil	Pincher Creek	1940	May	26,	1911
Smiley, Levy	Calgary	1852	June	13,	1911
Stackhouse, Wm. C	Edmonton	1869	June	26,	1911
Sebern, Horance E	Edmonton	1872	July	12,	1911
Smeaton, Andrew	Calgary	1903	Aug.	22,	1911
Sorenson, Charles	Lethbridge	1918	Aug.	24,	1911
St. Peter, J. F	Diamond City	2361	Aug.	14,	1912
Stevens, George N	Calgary	1939	Sept.	8,	1911
Skelton, Fred A	Wheat Centre	1950	Sept.	9,	1911
Slevinski, Alex	Mundare	1956	Sept.	9,	1911
Spallin, Joseph	Fort Saskatchewan	1957	Sept.	9,	1911
Selwood, Wm. H.	Clover Bar	1966	Oct.	18,	1911
Shields, Jas. R	Edmonton	1987	Nov.	10,	1911
Smith, Samuel George	Huxley	2003	Nov.	25,	1911
Smith, John	Lawrence	2022 1241	Dec.	31,	1911 1910
Sommers, Delbert	Lawrence	2153	Mar. Apr.	15, 16,	1912
Shidler, Elmer H	Cardston	1319	Apr.	7,	1910
Shidler, Elmer H	Cardston	2033	Feb.	14,	1912
Schrieber, William	Eyremore	1709	Mar.	31.	1911
Schrieber, William	Eyremore	2159	Apr.	19,	1912
Stoner, Orville W	Strathcona	19 <b>2</b> 2	Aug.	25.	1912
Stoner, Orville W	Strathcona	2106	Mar.	25,	1912
Scott, Wilbert W	Summerview	2084	Mar.	18,	1912
Scott, Frank	Gleichen	21 <b>32</b>	Apr.	4,	191 <b>2</b>
Sears, Thomas	Dalroy	2133	Apr.	4,	1912
Spoucler, W. J.		2154	Apr.	16,	1912
Sand, Elmer N		2171	Apr.	20,	1912
Strong, Ross D.		2185	Apr.	23,	1912
Scully, Daniel		2186	Apr.	23,	1912
Sillib, Walter	WnitiaW	2187	Apr.	23,	1912
Sinclair, E. R		2189	Apr.	23,	1912
Stuart, James E		2227	Apr.	29,	1912
Smart, Charles C		2390 2240	Sept. May	27, 1,	1912 1912
Strang, Andrew R		2241	мау Мау	1, 1,	1912
Stuart, Wm. G.			May	2.	1912
AT THE CO.	Coardale		wat er J	٠,	4914

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	DDRESS NO. OF CERT.		TE SSU		
Third Class-Continued	1					
Sherret, Charles	Lethbridge	2249	Мау	2,	1912	
Stewart, Andrew	Calgary	2282	May	22,	1912	
Skark, Jans	Calgary	2283	May	22,	1912	
Smith, Jno. Wesley	Calgary	2303	June	11,	1912	
Sherwood, Ralph O	St. Albert	2319	June	17,	1912	
Schafer, Melvan O	Edmonton	2335	July	16,	1912	
Scarr, Claude J	Bankhead	2348	July	18,	1912	
Spencer, James	Calgary	2373	Sept.	19,	1912	
Silver, William	St. Albert	2380	Sept.	20,	1912	
Stingle, Albert W	Edmonton	2389	Sept.	27,	1912	
Stone, William	Edmonton	2395	Oct.	7,	1912	
Scanlin, Edward	Bassano	2403	Oct.	19,	1912	
Trimble, H. W	Red Deer	*195	Dec.	18,	1901	
Townsend, R. C	Canmore	*314	Oct.	20,	1902	
Turner, Leonard J		469	Nov.	6,	1908	
Turnbull, Robt.	Okotoks	*470	Nov.	6,	1903	
Trussler, A. E.	Strathcona	*519	Apr.	8,	1904	
Tennison, Jno. C.	Leduc	*612 *722	Sept.	27,	1904	
Tribel, Clarence A	Red Deer	*782	Mar. Mar.	3,	$\frac{1905}{1905}$	
Tillapaugh, Jno	Warwick		Sept.	24, 23,	1905	
Tanner, Wm. Jos	Raymond	15	Sept.	16,	1905	
Thomas, A. I	Frank	890	Mar.	24,	1909	
Treasure, Sam	Claresholm	- (	Dec.	19,	1905	
Trembly, Miles I	Edmonton		Mar.	26,	1906	
Taylor, David A.	Red Deer		July	7,	1906	
Tufts, Josiah	Taber	187	Aug.	13,	1906	
Turner, Ernest H	Warwick		Sept.	3,	1906	
Towers, Fred J	Red Deer	299	Мау	20,	1907	
Traub, Wm.	Didsbury	325	Мау	29,	1907	
Telford, Ernest E.	Vermilion		Мау	31,	1907	
Tennant, Wm. J. Thompson, Geo. A.	Calgary		June	4,	1907	
Tiede, August	Red Willow		June	7,	1907	
Trussler, A. D.	Stettler Strathcona	f	June	7,	1907	
Thrum, Chas. W.	High River	. 4	June	14,	1907	
Turner, Geo. H.	Taber	4	June	19,	1907	
Tucker, Glines	Stavely		July May	15,	1907	
Tollestrup, Christian F	Raymond	. [	July	29, 15,	$1911 \\ 1907$	
Thwaytes, Lance ot	Edmonton		Oct.	15, 15,	1907	
Tewsley, Jas. S	Carstairs	- {	Oct.	24,	1907	
Thompson, Thos. G.	Edmonton		Apr.	2,	1908	
Turnbull, W. N.	Penhold	1	Apr.	14,	1908	
Taylor, Orrin O.	Harmattan	1	Apr.	14,	1908	
Tidball, Wm. E.	Carstairs	651	Apr.	15,	1908	
Taylor, Wm. L.	Killam	705	Мау	18,	1908	
Throndson, Theo.	Camrose	714	Мау	18,	1908	
Teardiff, Jos. E.	Fort Vermilion		Aug.	6,	1908	
Toews, Cornelius F. Tronnes, Peter	Stern		Sept.	11,	1908	
Todd, Walker	Dorenlee		Sept.	2,	1908	
Taylor, Wm. J.	Macleod		Mar.	28,	1910	
-1.0110, 1.10 urs	Canmore		Apr.	17,	1909	
trono, Emile	Canmore		Apr.	28,	1909	
Townsend, Leon E	Stirling		Apr.	28,	1909	
Inomas, Wm. H	Lloydminster		July	16,	1909	
road, wm.	Edmonton		Sept. Feb.	29, 29,	1909	
in apaugh, John F.	Vegreville		sept.	29,	$1912 \\ 1909$	
Tanner, Jas.	Macleod	(	Mar.	28,	1910	
*Indicates Certificate m	and amount of the by			40,	TOTA	

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF		TE (	
A STATE OF THE STA		)	1		
Third Class—Continued	lara. •	1000	4 m	,	191
Taylor, Henry G	Ponoka	1296 2054	Apr. Mar.	1, 12,	191
Toward, James B	Bankhead	1398	Apr.	25,	191
Chomas, Emery R			June	14,	191
ressler, Geo. A		1459	Aug.	15.	19:
Coppin, Samuel S	Kinn	1483	Sept.	1,	19:
Furner, Philip R	Fort Saskatchewan	1518	Sept.	21,	19
Thomas, Wm	Rassano	2004	Nov.	24,	19
Fodd, Robt.		1562	Oct.	19,	19
harp, Chancey L		1572	Oct.	20,	19
Comfohr, Geo		1587	Nov.	17,	19
Chompson, Henry		1677	Mar.	24,	19
Tennis, Lloyd		1678	Mar.	24,	19
Taylor, John W		1692	Mar.	29,	19
Thoreson, Thos. L	_	1700	Mar.	31,	19
l'ingley, Alex. B		1701	Mar.	31,	19
Furnell, Reese W		1728	Apr.	5,	19
Towler, John W	Sedgewick	1729	Apr.	5,	19
Taylor, Frank S		1748	Apr.	10,	19
Chillet, Claud		1823	May	20,	19
Thompson, And. J		1837	May	26,	19
	Milk River	1838	May	26,	19
Toews, Peter L		1904	Aug.	22,	19
Follestrup, Rudolph W		2420	Nov.	13,	19
Trail, Herbert		1996	Nov.	16,	19
Thompson, Gordon B		2011	Dec.	11,	19
Thompson, Chas	Red Deer	297	May	20,	19
Thompson, Chas		2337	July	17,	19
Thompson, James		2034	Feb.	14,	19
Thompson, Frank L	Macleod	1271	Mar.	28,	19
Thompson, Frank L		2085	Mar.	18,	19
l'hompson, Robson	Calgary	2027	Jan.	16,	19
reighton, Roy F	Wetaskiwin	2050	Feb.	23,	19
Cupper, Leon H	St. Albert	2107	Mar.	28,	19
Copper, George	Nanton	2113	Mar.	28,	19
Taylor, Roy	Dolcy	2146	Apr.	10,	19
Tubbs, Allie	Taber	2161	Apr.	19,	19
Thomas, Alfred Ernest	Edmonton	2320	June	17,	19
Taylor, Stead	Strathcona	2321	June	17,	19
Thorp, Fred. Wm	Calgary	2415	Nov.	12,	19
Itter, Frank C	Whitecourt	2051	Feb.	29,	19
Inderpool, Joseph W	Calgary	2043	Feb.	14,	19
Itas, Peter	Wetaskiwin	*331	Feb.	13,	19
Um/bach, Wm	Spruce Grove	*357	May	13,	19
Umbach, Jno. H	Spruce Grove	67	Mar.	16,	19
Jrback, Albert F	Calgary	258	Jan.	22,	19
Imbach, Edgar A		656	Apr.	22,	19
Inderwood, Harry A	Emsbury	689	May	1,	19
Ullman, Albert	Granum	842	Oct.	2,	19
Vogel, Wilhelm	Strathcona	*22	Oct.	2,	18
Van Meter, Chas. E		*212	Dec.	18,	19
Vanacker, Louis		*373	May	13,	19
Vig, Oscar O		763	Mar.	24,	19
Veeder, Robt. B		*791	Mar.	27,	19
VanSellick, Jacob		32	Sept.	16,	19
Van Wegan, Louis		42	Sept.	18,	19
Vogel, Ferdinand		2293	May	29,	19
	Bentley		Apr.	25,	19

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE		
Third Class—Continued					
Vaughan, Frank	Calgary	336	June	14,	1907
VanWinkle, Howard	High River	430	June	19,	1907
VanWinkle, Chester A	High River	439	June	19,	1907
Venables, Wm	Medicine Hat	482	Aug.	1,	1907
Veith, F. Wm	Inga	490	Oct.	15,	1907
Vesseur, Moses	Sylvan Lake	1194	Feb.	21,	1910
Vlasak, Rudolph	Wessington	539	Oct.	28,	1907
Vandburgh, Jas. N	Calgary	587	Mar.	23,	1907
Vanyel, Chas	Edmonton	597	Apr.	2,	1908
Vanderford, Sylvester A	Stettler	1297	Apr.	1,	1910
Vint, Francis	Stettler	1298	Apr.	1,	1910
Varembo, Olaf H	Camrose	1546	Oct.	7,	1910
VanMeter, Jacob A	Millet	823	Sept.	29,	1908
Valentine, Marcon F	Bellevue	924	Mar.	30,	1909
Vaughn, Clifford E	Wetaskiwin	1097	Sept.	7,	1909
VanKluck, Alerie	Reid Hill	1136	Sept.	21,	1909
Von Wald, Ernest C	Stavely	1952	Sept.	9,	1911
Vincent, Robert W	Coleman		Mar.	18,	1912
	La Peari	2147	Apr.	10,	1912
Van Der Doorn, Ant. E	Medicine Hat	2190	Apr.	23,	1912
Van Der Velde, M	Langdon	2214	Apr.	26,	1912
Witmer, Abram	Strathcona	*29	Oct.	9,	1899
Wilson, Jas.	Calgary	65	July	19,	1900
Wulff, Nick	Edmonton	1082	July	13,	1909
Walker, Robt.	Edmonton	*251	Aug.	18,	1902
Weder, Frank	Beaver Hills		Oct.	28.	1903
Wells, Chas.	Rosenroll	*517	Apr.	18,	1904
wardrop, Jno. L.	East Clover Bar	*640	Oct.	15,	1904
Will, Louis	Bankhead	*682	Jan.	3,	1905
Wilkinson, Richard	Olds	*754	Mar.	24,	1905
Whitecotton, Robt. M.	Lacombe	164	July	14,	190€
wilson, wm. Jos.	Coleman	9	Sept.	16,	1908
Wallace, W. J.	Macleod	12	Sept.	16,	1908
wood, wm. F.	Tofield	44	Sept.	18,	190
whalen, Jas	Edmonton	69	Mar.	1,	190€
wetterbeig, Theo.	Canmore	100	Apr.	20,	1906
watts, Sam	Lacombe	103	Apr.	24,	190€
werner, wm. Fred	Red Deer	108	Apr.	24,	190€
waymark, Richard T	Calgary	123	Apr.	30,	190€
Whitaker, Wm.	Edmonton	129	May	4,	190€
warker, Robt. T	Strathcona	134	May	10,	1906
Wister, Uliver P	Stettler	136	May	10,	1906
webber, Alfred	Medicine Hat	2141	Apr.	23,	1912
Wickens, J. A.	Cayley	199	Aug.	13,	1906
Wright, Bruce M	Calgary	205	July	30,	1906
watters, wm. E	Strathcona	277	Sept.	20,	1906
wynn, Robt.	Kneehill Valley	291	May	20,	190
wood, Rex. R	Carstairs	309	May	29,	1907
	Rawdonville	322	Мау	29,	1907
	Marwayne	390	June	14,	1907
"alkerinever Wm	Heatherbrae	396	June	14,	1901
TIMEON, ISHAE A	High River		June	19,	1907
Wisch, Archibald	Brant		Aug.	10,	1910
Wildelman, Raymond A	High River		June	19.	1907
vaiters, wm	Claresholm	(	Oct.	24,	1908
WINCOCKS, Wm	Lethbridge		July	15,	1908
watson, Walter J	Claresholm	578	Mar.	23,	1908
		010	ACT COL .	40,	1300
White, Jack Wright, Merit B.	Calgary	585	Mar.	23,	1908

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE ISSU		
Third Class-Continued					
White, Geo. T	Red Deer	639	Apr.	14,	1908
Williams, Frank T	Crossfield	682	May	1,	1908
Winkleman, Jules	Leduc	711	May	18,	1908
Wilbert, Chas	Wetaskiwin	721	May	28,	1908
Walker, Preston	Lacombe	772	Sept.	14,	1908
Watson, P	Edmonton	781	Sept.	18,	1908
Wentworth, Wm	Okotoks	806	Sept.	22,	1908
Wilson, Bert M	Nanton	843	Oct.	2,	1908
Wright, Leroy H	Cardston	859	Oct.	6,	1908
Wilson, Chas. O	Spring Coulee	803	Oct.	21,	1908
Wallwork, Jas	Taber	903	Mar.	24,	1909
Webster, Alexr	Pincher Creek	933	Apr.	1,	1909
Weber, Noah R	Carstairs	950	Apr.	6,	1909
Watts, Geo	Macleod	957	Apr.	9,	<b>19</b> 09
Wilson, Andrew W	Vegreville	985	Apr.	20,	1909
Walker, Edgar N	Mundare	986	Apr.	20,	1909
Wilson, Jos. W	Edmonton	987	Apr.	20,	1909
Wyman, Clark I	Magrath	1007	Apr.	25,	1909
Walker, Chas. H	Warner	1008	Apr.	25,	1909
Williams, Edgar H	Bankhead	1034	Apr.	28,	1909
Woodcock, Frank F	Medicine Hat	1155	Sept.	28,	1900
Wiltzen, Martin	Chipman	1043	Apr.	29,	1909
White, Edward	Lethbridge	1056	May	3,	1909
Winter, Archibald	Strathcona	1072	May	21,	1909
Weisser, Christian B	Camrose	1094	Sept.	7,	1909
West, Wm. A	Mewassin	1099	Sept.	13,	1909
White, Thos. J	Stirling	1108	Sept.	15,	1909
	Lineham	1137	Sept.	21,	1909
,	Carstairs	1138	Sept.	21,	1909
	Carstairs	1139	Sept.	21,	1909
	Edmonton	1149	Sept.	25,	1909
	Lawrence	1156	Sept.	28,	1909
	Strathcona		Dec.	4,	1909
	Red Deer		Mar.	3,	1910
	Magrath		Mar.	15,	1910
	Camrose		Apr.	1,	1910
	Bankhead		Dec.	18,	1912
Watson, Robt.	Edgerton	,	Apr.	13,	1910
	Tofield		Apr.	13,	1910
	Warner		Apr.	14,	1910
	Lethbridge	. 1	Apr.	14,	1910
	Medicine Hat		Apr.	25,	1910
	Medicine Hat		Apr.	15,	1911
	Banff	- :	June	14,	1910
	Lethbridge		Ju'y	8,	1910
	Brooks	,	July	15,	1910
	Warren		Sept.	7,	1910
C7711	Calgary	1	Sept.	23,	1910
	Bassano		Sept.	23,	1910
Wocknitz Paul	Angus Ridge		Oct.	7,	1910
	Magrath		Oct.	20,	1910
ray	Medicine Hat		Oct.	20,	1910
Wolfe, John W.	Edmonton		Apr.	12,	1911
			Nov.	21,	1910
Williams, Alfred L.	Calgary	4	Dec.	15,	1910
Weston, Thomas W	Hillorget		Dec.	15,	1910
Watson, Wilfred G.	Calgary		Apr. Mar.	1,	1912
	Oangary	TOOD .	MISTI.	20,	1911
Wallace, Richard R	Lloydminster	1669	Mar.	22,	1911

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	DATE (						
Third Class-Continued									
Wight, H. E	Cardston	1683	Mar.	28,	1911				
Wright, Oscar H	Warner	1693	Mar.	29,	1911				
Wagar, Elmore C		1710	Mar.	31,	1911				
Wagar, George	1	1711	Mar	31,	1911				
Wilson, Charles B		1730	Apr.	5,	1911				
Wood, Thomas W. G		1794	Apr.	24,	1911				
Weeks, George S		1795	Apr.	24,	1911				
Woods, George			Apr.	26,	1911 1911				
Wilbraham, George			June July	9, 12,	1911				
Williams, Thomas			July	19,	1911				
Wilson, Ernest	Langdon		July	19,	1911				
Walker, Jas H	Gleichen	1905	Aug.	22,	1911				
Wonson, Louis A	Calgary	. 1	Sept.	8,	1911				
Wagar, Arnold	Miilet		Sept.	9,	1911				
Wilson, Oscar L	High River	. 1	Oct.	20,	1911				
Weish, John	Vermilion	2012	Dec.	12,	1911				
Williams, Ross D	Winnifred	2017	$\mathrm{De}c.$	19,	1911				
Wertz, Ran. W	Lethbridge	2018	Dec.	19,	1911				
Whalls, George	Calgary		Dec.	23,	1911				
Wharron, Frank T.	Calgary	_ +	Apr.	7,	1910				
Wharron, Frank T	Calgary		Apr.	19,	1912				
Williams, Wm. D	Vermilion		Sept.	21,	1910				
Williams, Wm. D	Vermilion	. (	Apr.	29,	1912				
Wallace, F. M	Lethbridge		July	13,	1911				
Wilson, Steven E.	Colcony	1	Mar. Feb.	13, 14,	$\begin{array}{c} 1912 \\ 1912 \end{array}$				
Wentz, Earl R	Medicine Hat	_ /	Mar.	13,	1912				
Wark, Fred D	Gladys	- 4	Mar.	28,	1912				
Whitehouse, Jas. E	Strathmore		Apr.	4,	1912				
Willits, John T	Clover Bar		Apr.	29,	1912				
Weber, Edwin	Didsbury	2261	May	3,	1912				
Wesenberg, William	Ghost Pine Creek	2262	May	3,	1912				
Wheatley, Edward A	Leslieville		Мау	15,	1912				
Williams, John	Litle	+	Мау	18,	1912				
Watson, Isaac M	Lethbridge	!	Мау	18,	1912				
Winters, Arthur J	Bassaho		Мау	22,	1912				
Wilcox, Edward	Commons		Мау	29,	1912				
Wilson, Aaron	Colgary		June	10,	1912				
Walker, Alex.	Coloary		June June	11, 21,	$1912 \\ 1912$				
white, William L.	Edmonton	- : - (	July	16,	1912				
ward, william	Calgary		July	18,	1912				
warker, John F.	Raggano		July	18,	1912				
wright, Frank G.	Staffordville		July	19,	1912				
ward, walter Geo	Lethbridge	(	Aug.	14,	1912				
wisiner, Henry F.	Nanton		Oct.	19,	1912				
Wyatt, Sidney	Calgary		Oct.	19,	1912				
Wright, Joseph	Calgary	2408	Oct.	19,	1912				
Young, Arthur	Banff	*491	Mar.	14,	1904				
Young, D. M.	Lethbridge		Sept.	16,	1905				
reamans, Chas, A.	Edmonton		May.	29,	1912				
Young, Jno. T.	Stavely		luly	15,	1907				
Young, Alvia L.	Markerville		Apr.	14,	1908				
Young, David	Strathcona		Sept.	29,	1912				
loung, Peter	Calgary		lpr.	9,	1909				
Young, Jas	Edmonton		Apr.	13,	1910				
Young, Jas	Proglest		lpr.	23,	1910				
*Indicates Contificates	DI OUREL	1634 [1	Mar.	15,	1911				

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

## Schedule of Holders of Final Certificates of Qualification under The Steam Boilers Act.—Continued.

NAME	ADDRESS	NO. OF CERT.	1	TE SSU	~ -
Third Class-Continued					
Zimmerman, Arthur C	Bawlf	1548	Oct.	7.	1910
Zuehlke, F. C	Urquhart	*188	Dec.	18,	1901
Zimmerman, Otto	Red Lodge		Mar.	24.	1905
Zachowski, John	Edison	1150	Sept.	25,	1909
Zille, Frank	Lille	2087	Mar.	18.	1912
Zorves, Andrew J		2088	Mar.	18,	1912

<sup>\*</sup>Indicates Certificate was granted by North-West Territories.

## TRACTION ENGINEERS' Final Certificates.

NAME	ADDRESS	NO. OF CERT.		TE SSU	
Arrison, Norman W	Gleichen	73	Aug.	16.	1912
Andrews, John	Stewartwayn	1	May	13,	1912
Adler, Lee	Stirling	32	June	14,	1912
Arndt, Paul	Whitla	83	Sept.	17,	1912
Atkinson, Henry	Mediclne Hat	84	Sept.	17,	1912
Blatchford, Arthur L	Olds	56	July	30,	1912
Benning, Alonso	Lethbridge	26 27	June	5,	1912
Bassett, Chas. C	Cora Lynn	28	June June	10, 10,	1912 1912
Bobier, Louls	Coaldale	65	Aug.	14,	1912
Brown, Frank	Spring Coulee	85	Sept.	17,	191
Buchanan, Robt. Jas	Welling	86	Sept.	17,	191
Boyce, Samuel L	Calgary	107	Sept.	19,	1912
Beebe, Roy A	Cowley	122	Oct.	17,	1912
Bowman, Harry H	Hlgh Rlver	126	Oct.	19,	1912
Baker, Edwln E	Glenvlew	127	Oct.	19,	1912
Blegan, John P	Crossfleld	131	Oct.	19,	1912
Cale, Arthur Wm.	Lethbridge	82	Sept.	9,	1912
Choate, Stewart	Trochu	2	May	13,	1912
Curtis, Albert G	Cora Lynn	3	Мау	13,	1912
Cook, Manny. A.	Calgary	17	May	22,	1912
Cathcart, James	Edmonton	38 48	June July	17,	1912 1912
Coutts, Alex.	Warner	53	July	18, 19,	1912
Church, Herbert Geo.	Winnifred	66	Aug.	14,	1912
Coldsnow, Alvah	Coutts	87	Sept.	17,	1912
Clark, Charles	Calgary	106	Sept.	19,	1912
Caskey, Oran A.	Caskey	115	Sept.	27,	1912
Shaffin, John D.	Arrowood	129	Oct.	19,	1912
Chlppenden, Henry L	Bassano	138	Dec.	18,	1912
Donnelly, Walter S	Bow Island	33	June	14,	1912
Dlmmer, Matt	Coaldale	67	Aug.	14,	1912
Dopp, Barnett	Seven Persons	88	Sept.	17,	1912
Danlelson, Danlei T	St. Kilda	89	Sept.	17,	1912
	Ft Saskatchewan	111 133	Sept. Nov.	20, 8,	1912 1912
	Coalbanks	4	May	10	1016
Engle, Ralph N.	Bassano	31	June	13, 11,	1912 1912
Elllott, Walter E.	Calgary	130	Oct.	19,	1912
			Ì	10,	1312
Flyrk, Gust.	Pendant D'Orllla	12	May	18,	1912
Firth, Wilfred	Lethbridge	12 <b>3</b> 134	Oct. Nov.	17, 8.	1912 1912
	}	101	1100.	٥,	1912
Green, John Hy.	Staunton	68	Aug.	14,	1912
Gray, Joseph O.	Grassy Lake		May	18,	1912
Grubert, Henry Gow, Archlbald	Leduc	57	Aug.	12,	1912
Glichrist, Lee	Athabasca Landing		June	28,	1912
Graham, Fred O.	Ciaresholm	90 91	Sept. Sept.	17, 17,	1912 1912
Harwood, Gordon W.	i			·	
ACODE. WIIIISM	Calgary	5 18	May	13,	1912
TOWER INDEP 1.	Holest Lilli	58	May	22, 12	1912 1912
riately, Edward Geo.	Wheat Centre	74	Aug. Aug.	12, 20.	1912
	Carmangav	92	Sept.	17.	1912
	CALIENTY		Sept.	19,	1912
AGLINET, EGWARD	Eldmonton .		Sept.	27,	1912
Henderson, Harry	Okotoks	128	Oct.	19,	1912

# Annual Report, 1912 TRACTION Engineers' Final Certificates.—Continued.

NAME	ADDRESS	NO. OF CERT.	1	TE SSU	
			<u>.                                    </u>		
Jerome, Earl		14	May	18,	1912
Johnson, John G		19	May	22,	1912
Johnson, Aug. K		<b>2</b> 5	May	29,	1912
Jackson, Lionel A	Calgary	75	Aug	20,	1912
Jamieson, Harry W	Nanton	76	Aug.	20,	1912
Johannsen, Hy. G	Bergen	113	Sept.	21,	1912
Johnston, Albert E	Edmonton	117	Sept.	27,	1912
Johnson, Oscar F	Strathmore	139	Dec.	18,	1912
Klaparezuk, Stephen	Mundare	121	Oct.	14,	1912
Krodel, John A	Irvine	55	July	23,	1912
Koester, Clarence G	Lost Lake	69	Aug.	14,	1912
Kelly, Robert	Calgary	77	Aug.	20,	1912
Kuhl, Edward	Calgary	20	Мау	22,	1912
Loomer, Charles S	Endiang	6	Мау	13,	1912
Langer, Paul	Eckville	30	June	10,	1912
Lyon, Jay	Claresholm	35	June	14,	1912
Latta, Charles W	Tofield	39	June	17,	1912
Lawin, Frank E	Pine Creek	59	Aug.	12,	1912
Lawler, Joseph W	Lethbridge	70	Aug.	14,	1912
Lefebvre, Adelard J	Irvine	72	Aug.	14,	1912
Litke, Steve	Gleichen	78	Aug.	20,	1912
Lynn, John W	Crossfield	101	Sept.	19,	1912
Lerbeckmo, Peter	Bardo	112	Sept.	20,	1912
Magill, Otis D	Calgary	79	Aug.	20,	1912
Matti, Adolf	MacLeod	93	Sept.	17,	1912
Maki, Gust	Sylvan Lake	135	Nov.	12,	1912
Mullane, Chris. D	Lethbridge	137	Dec.	17,	1912
McCoy, Martin H	Coaldale	15	May	18,	1912
McGhan, Lloyd Jas	Clover Bar	60	Aug.	12.	1912
McNab. Duncan	Kipp	96	Sept.	17,	1912
McDowell, Grant S	Vulcan	124	Oct.	17,	1912
Nelson, Ernest W	Calgary	125	Oct.	19,	1912
Nemsgern, Nicholas	Claresholm	94	Sept.	17,	1912
Norris, Roy James	Lethbridge	95	Dec.	17,	1912
Ogden, Herman E	Pincher City	34 49	June July	14, 18,	$1912 \\ 1912$
			July	•	1314
Perin, Charles A	Calgary	50	July	18,	1912
Pearson, Vernon	Lethbridge	54	July	19,	1912
Pennington, Wm	Lethbridge	136	Nov.	13,	1912
Robertson, Donald	Medicine Hat	36	June	14,	1912
Rowlands, Hugh G.	Delroys	51	July	18,	1912
Rennie, James C.	Yetwood	71	Aug.	14.	1912
Rhoads, George	Calgary	80	Aug.	20,	1912
Rickey, Foster	Lethbridge		Sept.	17,	1912
Smith, Rowland	Castleyville	7	Мау	13,	1912
Scheerschmidt, Bernhardt	Stettler		Мау	13,	1912
Smith, Manley	Olds	11	May	15,	1912
Scott, William J	Bassano	21	May	22,	1912
Stauffer, John L.	Round Hill	24	May	29,	1912
Scott, Allan O.	Kinsella	42	July	16,	1912
Stott, John J.	Hardisty	43	July	16,	1912
Sidet, Elmer	Jethson	52	July	18,	1912
Sandstrom, Axel	Calmar	61		12,	1912
Schultz, Fred H.	Bruderheim		Aug. Aug.		
Samue'son, Lorantz	Cummings		Aug.	12, 12,	$\begin{array}{c} 1912 \\ 1912 \end{array}$
Stewart, William J	Hughenden			22,	1912
~ cowart, william J	Guotacit (11111111111	91	Aug.	42,	1912

## TRACTION ENGINEERS' Final Certificates.—Continued.

NAME	ADDRESS	NO. OF CERT.		TE SSU	
Straus, Fred J	Stavely	98	  Sept.	17.	1912
Scott. Robert T	Cayley	108	Sept.	19.	1912
Stevenson, Ivie W	Calgary	109	Sept.	19.	1912
Stewart, Martin O	Calgary	110	Sept.	19,	1912
Smlth, Aug. W. De'H	Paddle River	114	Sept.	20,	1912
Snell, Edward	Bittern Lake	18	Sept.	27.	1912
Scheideman, John	Mewassin	120	lOct.	10.	1912
Scheideman, John	INTO WASSIII	. 120	000	,	1011
Tellesen, Alex	Ingleton	9	May	13.	1912
Tupper. Roy O	Entwistle	_	May	29.	1912
	Clover Bar		July	16.	1912
Thordarson, Chris	Bow Island	99	Sept.	17.	1912
Thompson, Charles	DOW Island		Dept.	Ι,,	1012
TImdenmond Tilmon A	Gadsby	10	Mav	13.	1912
Underwood, Elmer A	Manfred		Nov.	7.	1912
Utas, Chas	Water Glen	64	Aug.	14.	1912
Utas, Christlan	water Gren	0.1	Aug.	17,	1914
Valcour, Alga	Riviere Qui Barre	45	July	16.	1902
Van Horn, William	Gleichen	103	Sept.	19,	1912
van Holai, villiam in				,	
Willsen, William	Many Berries	16	May	18.	1912
Watters, Chas. A.	Calgary	22	May	22.	1912
Weatherhead, Marsden	Lethbridge		June	14.	1912
Ward, Luman G	Athabasca Landing	41	June	28.	1912
Whitney, John E	Iola		July	17.	1912
Williamson, Charles W	Claresholm		Sept.	17.	1912
Wismer, Henry F	Nanton		Sept.	19.	1912
Wells, Edwin Newton	Cluny		Sept.	19.	1912
Wiltzen, Norman	Chipman		Sept.	27.	1912
TTILLOUIS ATOLINICAL	~~~pastchit	110	~010	21,	TOTA

### FIREMEN'S Final Certificates.

NAME	ADDRESS	NO. OF CERT.		TE SSUI	
Lee, Elling	Calgary	3	Sept.	19,	1912
Miller, John B	Calgary Edmonton	1 4	June Oct.		1912 1912
Willis, Percy W	Calgary	2	June	21,	1912

Edmonton, January 13, 1913.

#### REPORT OF CORRESPONDENCE BRANCH FOR YEAR 1912

With reference to the work of this branch for the year the following statement will give a fair idea.

In view of the fact that prior to 1912 this department included the municipal or local improvement and telephone branches, but, now being separate departments a fair comparison with past years cannot be made:

Number of letters received	51,774
Number of letters mailed	51,426
Total number of communications	103,200
Number of cash items received	2,546
Amount of cash received\$1	66,000.05
Number of registered letters received	1,678
Number of registered letters mailed	7,297
Amount of postage used	\$1,411.25
Number of new files made and indexed	1,787

Edmonton, January 17th, 1913.

JOHN STOCKS, Esq.,

Deputy Minister of Public Works,

Edmonton, Alta.

SIR,—As accountant of the Department of Public Works, I have the honour to submit herewith my annual report for the year ending December 31st, 1912.

During the year 1912 the work of this branch has been largely increased, the expenditure being about one-third heavier than in 1911, while the receipts of revenue of the department have increased three-fold. Below you will find reported in detail the work of the department for the year.

Amount provided for Capital Account Expenditure	0.000.000.00	
during 1912\$  Amount provided for expenditure chargeable to income	2,367,058.20 450,000.00	
Amount provided for expenditure under special warrants	98,800.00	\$2,915,858.20
Amount provided for civil government expenditure Total amount provided in connection with the De-		56,080.00
partment of Public Works for the year 1912 Monies collected during 1912 on account of Public Works Department, as detailed below and placed to the credit of General Revenue—		2,971,938.20
Steam Boilers Branch Coal Mines Branch Surveys Branch: Grazing leases\$ 372.00	18,719.70 3,030.00	
Approval and final fees in connection with town site plans	93,058.79	
Monies received on account of sales of material, refunds, etc.	73,538.32	188,346.81
Monies collected by Public Works and placed to the credit of general revenue suspense account  Monies on hand in general revenue suspense account December 31st, 1912, as represented by cash book	93,179.02	100,040.01
balance		30,389.35
to the credit of trust account "A"		115,210.47
tion of trust account "A"		156,513.06
Amount expended from general revenue during 1912. Income Capital	481,165.79	58,334.32
Warrants	23,302.50	0.504.000.77
Amount expended in conection with civil government		2,721,909.76
during 1912  Receipts  Expenditure 2	392,280.95 ,930,300.20	51,877.38
\$3	3,322,581.15	\$3,322,581.15

Details of expenditure from all sources for the year are as follows:

Furnishing and maintenance of public buildings, \$131,951.36. Caretaking and maintenance of government house, \$4,340.63. Completing and furnishing new buildings throughout the province during the

year amounted to \$904,720.90. Inspection of public works in connection with the smaller works cost \$9,495.12, while the inspection of trunk roads and trunk bridges with the larger wooden bridges in the various constituencies amounted to \$9,099.04. Inspection of coal mines in connection with operation cost \$16,229.10, and the installation and equipment of the two rescue stations in connection with coal mines cost \$9,552.43. The administration of the steam boilers branch, inspections and examinations cost \$25,820.57. The installation of ferries and operation and upkeep for the year amounted to \$36,205.39. The provincial drainage schemes cost \$10,866.29. Repairs to bridges cost \$31,257.23. Construction of the smaller roads cost \$210,601.82. The construction of trunk roads and the bridges in connection with them amount to \$895,-Wooden bridges throughout the province amounted to \$197,-195.33. The cost of our surveyors and their parties in the field, with the amount paid for compensation for land procured for road allowances amounted to \$79,314.37, and the administration of this branch, including supervision of plans and the ordinary office expenses amounted to \$7,116.81. Furniture purchased for the parliament buildings cost \$12,501.56. The cost of finishing material purchased and worked up in the carpenter shop for the various provincial buildings was \$12,592.57. The improvement of the grounds around the Wetaskiwin court house cost \$270.35. Accidents to workmen engaged on the various provincial works and for other unforseen expenditure amounting to \$7,147.76. The Normal school site at Camrose cost \$16,800.00, and the amount expended in connection with the visit of the Duke of Connaught was \$6,502.50. This amount covers the cost of entertaining and dressing the public buildings at the various points throughout the province where His Royal Highness was entertained. The total amount expended upon staff salaries from civil government for the year was \$44,317.48. Postage used in the department amounted to \$1,090.00. Telegrams, telephone messages cost \$1,022.81. Sundry expenditures, including printing, cost \$5,447.09, making a total expenditure under civil government of \$51,877,38.

The total amount expended from local improvement trust account "A" amounted to \$156,513.06. Of this amount the sum of \$32,801.03 was paid for salaries to the staff of this department, but of this latter amount educational trust account, reimbursed this account to the extent of \$4,878.02 for clerical work and for postage supplies. This account also refunded \$900.00.

Number of accounts examined and passed to the treasury department for payment during the year	
Total number of accounts passed for payment for the year	\$15,537
Number of cheques issued in connection with the payment of accounts  L. I. districts during the year  Number of cheques issued in connection with general revenue suspense account for the year	\$4,389
<u>-</u>	\$4,683

Besides the above expenditure there was handled through this office part of the cost of construction in connection with the addition to the Central Telephone Exchange in Calgary. For this purpose the

telephone department advanced us \$12,000.00 and in disbursing this we checked and passed for payment 21 payrolls and issued 306 cheques. Below you will find a statement of this expenditure.

Amount of advance\$12,000.00 Interest on same 107.00	Amount expended\$ 9,294.69 Unexpended balance re-
	turned
	department 107.00
<del></del>	
\$12,107.00	\$12,107.00

There was also paid to Messrs. Scott and Fraser, of Frank, by cheque No. 283 from General Revenue Suspense Account, the sum of \$1,870.85, covering the provincial government's proportion of cost of moving 35 houses belonging to Canadian Coal Consolidated, Limited, from the danger zone near Frank.

Respectfully submitted,

HENRY K. HYDE,

Accountant of Public Works.